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ACE

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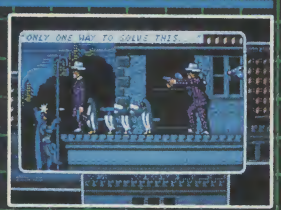

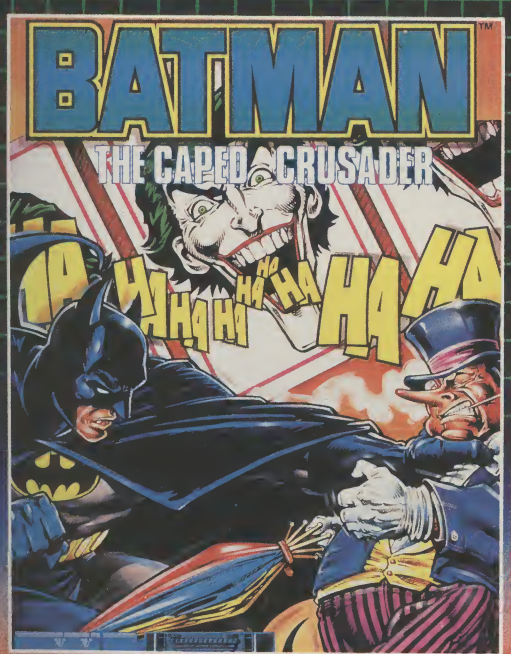

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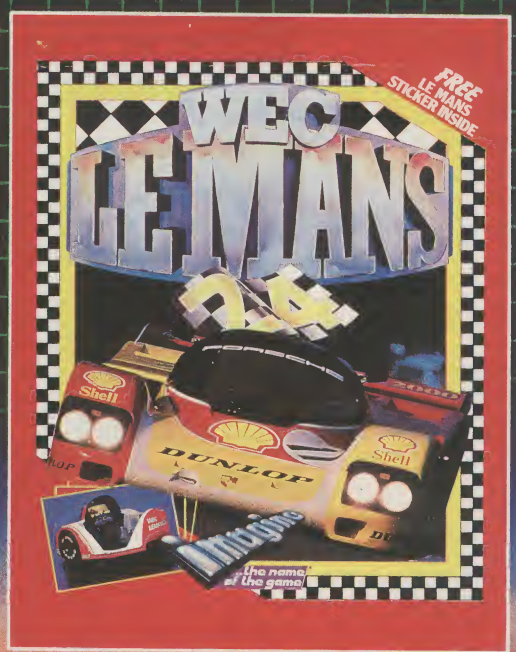

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Kind regards to the EMAP eejits

SPECIALS

GAMES WITHOUT FRONTIERS.....24
Compact disc storage in conjunction with new hardware will lead to real video action in computer games. We check out the hardware and find out who's developing what...

PLAYING ROLES 90
Steve Cooke takes an overview of Role Playing games on computer, in the RPG-uide, starting this month.

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UP AND COMING.....14-20
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ARCADE ACE 22
Our intrepid coinslot filler Andrew Smith takes a look at *Ikari III* and *Saint Dragon*, two hot new arcade entries.

SCREEN TEST 35
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SCREENTEST SUPPLEMENT.....63
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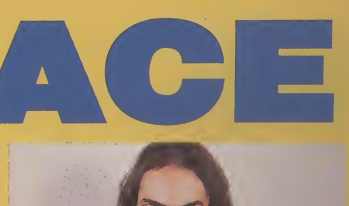
Get that ghetto blaster gleaming, shine up that HiFi, overhaul that Walkman. Radio ACE has arrived for your edification and amazement – and it's all in glorious stereophonic sound.

Radio ACE

Tune it to the soundtracks of hit games reviewed this issue, listen to the ACE chart rundown, find out what Rob Hubbard's latest composition sounds like, check out the history of computer music, eavesdrop on CD ROM *Defender of the Crown*, prick up your ears to the Radio Ace Aural Competition and listen to the first Reader's Composition, sent in by John Waltho after he heard the Making Music feature last issue. Whew! You'll have to put your ears on a diet after they've feasted on Radio Ace.



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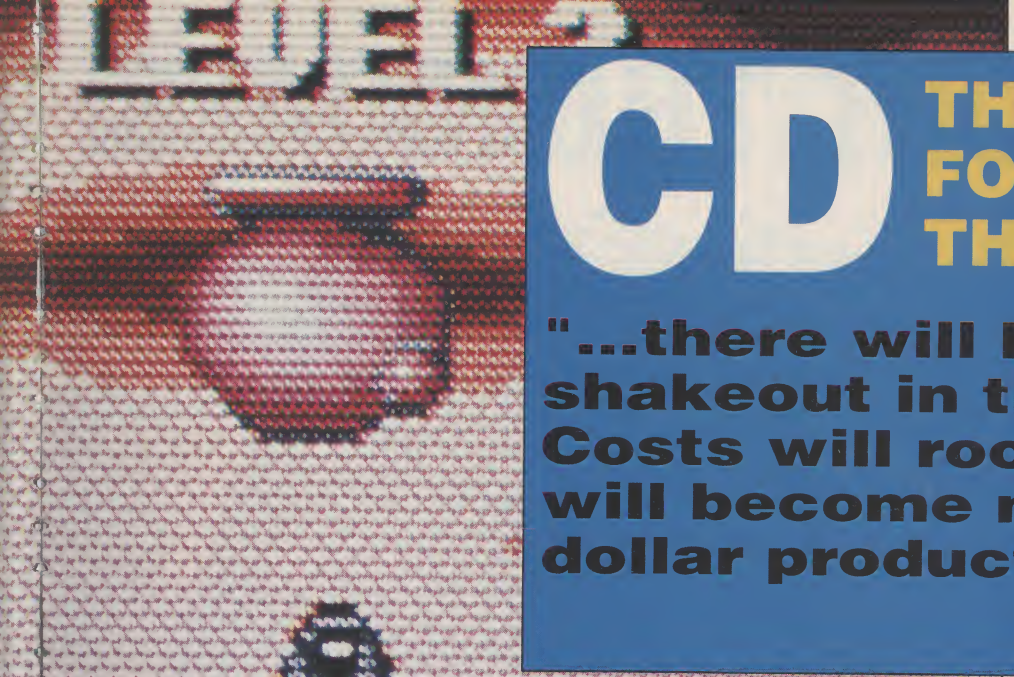

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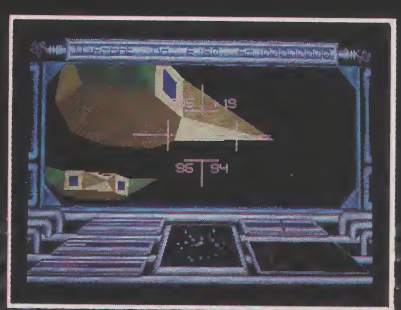
"...there will be a massive shakeout in the industry. Costs will rocket, games will become multi-million dollar productions..."

Find out why. Page 24

Grand Monster Slam p42



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TRICKS 'N' TACTICS.....63
Graced with the presence of Mike Singleton, T'N'T's main attraction this month is the first instalment of a special two-part playing guide to 8-bit *War In Middle Earth*, giving the low-down on all things Hobbitty and Orc-like.

Meanwhile on the 16-bit front, there's a special coaching session on *TV Sports Football*, and some extremely useful tips on how to get going with *FOFT*. All this, plus a goldmine of information for the discerning – but unscrupulous – games player!

ADVENTURES.....88
Steve Cooke gets into preview mode again, taking a peek at what's around the corner from Infocom, then moves into gear with Part One of his role-playing analysis.

REGULARS

NEWS.....9
It has been a busy month. New labels have been launched, new hardware announced and Telecomsoft is about to go to a new owner. Find out all about it.

LETTERS.....12
The usual mix of prizes and opinions.

GRAPHICS.....81
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MUSIC.....85
Jon Bates gets to grips with sequencers: whatever your machine, there's no reason for not making sweet music.

IN THE PINK

In the Pink Pages this month: the editor goes slightly mad; handy tips for computer gaming, featuring the fabulous Binocumags; competition results; more news of Play by Mail games; a full MicroProse soccer report; plus puzzles, cross-words, surprises, Nigel from Rigel, N'Gar Thrombobo, and (eventually) the final frontier in the form of the Blitter End.

MATE SEGA SYSTEM

Hardware, software and useful non-computer clobber is all on offer. Page 33

CHECK OUT THE NAMES.

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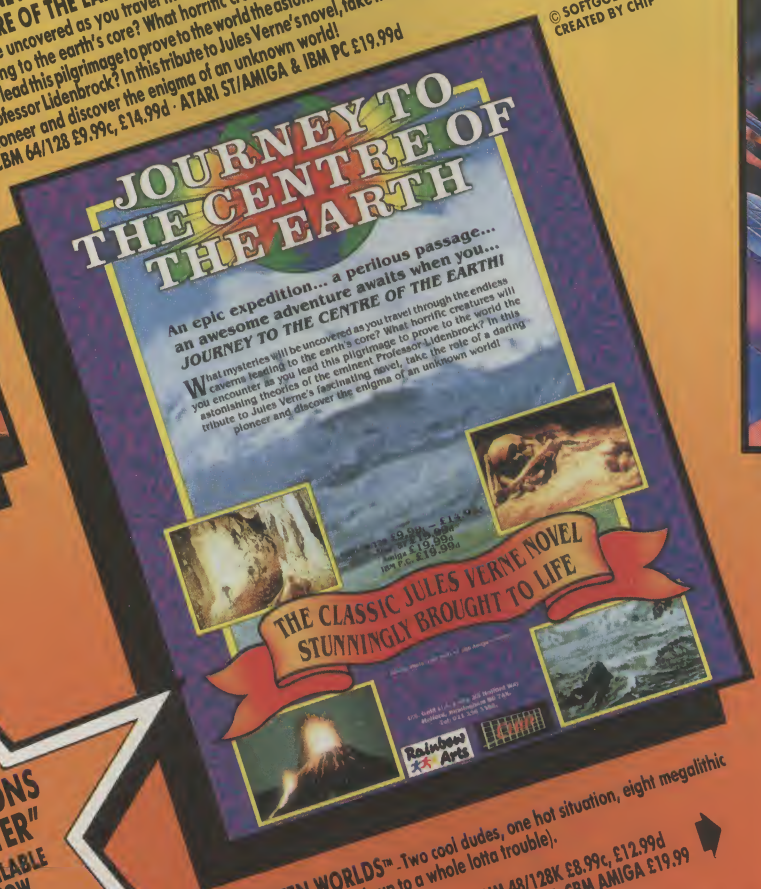

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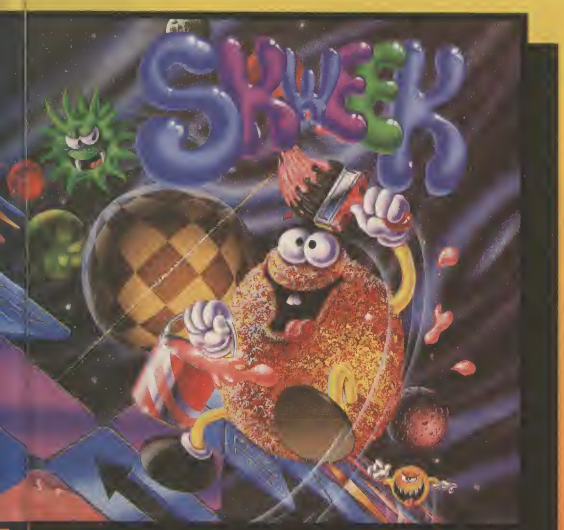

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Software City 3 Lichfield Passage, Wolverhampton. **Tel: 0902 25304**
Venture City Broad Street, Sidemoor, Bromsgrove. **Tel: 0527 72650**
Virgin Games 98 Corporation Street, Birmingham. **Tel: 021 236 1577**
Watchdog Comp 40 Queen Street, Wolverhampton. **Tel: 0902 313600**

WEST SUSSEX
Crawley Computers 62 The Boulevard, Crawley. **Tel: 0293 37842**
Worthing Computers 7 Warwick Street, Warthing. **Tel: 0903 210861**

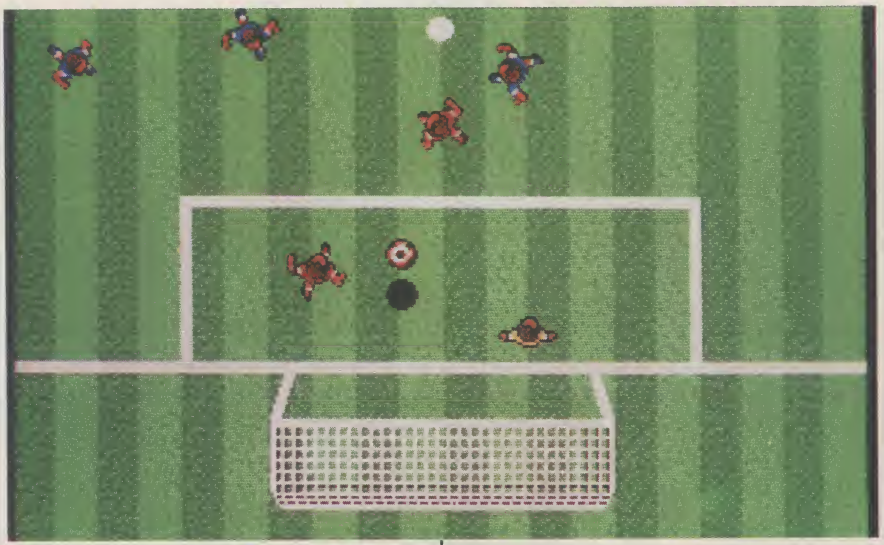
WEST YORKSHIRE
Ator. Software 495 Great Horton Road, Great Horton, Bradford. **Tel: 0274 373788**
Microbyte 1 Kirkgate Mall, The Kirkgate Centre, Bradford. **Tel: 0274 308829**
Microbyte 29 Queen Victoria Street, Leeds. **Tel: 0532 450529**
Microbyte 33 Kirkgate, Wakefield. **Tel: 0924 376656**
The Computer Store 34/36 Ivegate, Bradford. **Tel: 0274 732094**
The Computer Store 10 Square, The Woolshops, Halifax. **Tel: 0422 69077**
The Computer Store 4 Market Place, Huddersfield. **Tel: 0484 514405**
The Computer Store 40 Trinity Arcade, Bond Street Centre, Leeds. **Tel: 0532 429284**
The Computer Store 13 Westmoreland Street, Wakefield. **Tel: 0924 290139**
Virgin Games 94 Briggate, Leeds. **Tel: 0532 432606.**

WILTSHIRE
Antics 8 Regent Circus, Swindon. **Tel: 0793 611253**

U.S. Gold Limited, Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Tel: 021 356 3388.

ADVERTISEMENT

MicroProse Soccer



MicroProse shocked everybody when they released MicroProse Soccer for the C64. Not only had they produced a non-militaristic product, they had done it with such expertise that MicroProse Soccer has become an instant classic on that format. Now, MicroProse have released the sixteen-bit version. Just how do they compare with the original version? Read on . . .

The simulation provides both indoor and outdoor action with American rules six-a-side and standard eleven-a-side respectively. The time for each game can be varied between 2 and 12 minutes. Players may play against each other or one play against the computer. Selection of your team in the World Cup Competition is crucial, as it is in real life – it is much easier to win if you are a historically good footballing nation, such as Brazil than if you are Oman or Algeria. Conversely, if you get too good, you could try taking on the might of West Germany with yourself playing as Poland. Other control options allow for extremely varied games, with effects, such as, rain, thunder, overhead kicks and banana shorts coming into play.

You are presented, on kick-off, with a look-down view – not a common one, but one that works well. On the 16-bit versions, you get no-holds barred, full screen, 8-way scrolling (so smooth!). Control your player nearest the ball with your joystick, using the firebutton to kick the ball in the direction your player is facing. The position of the joystick when kicking the ball determines the path that the ball takes, such as, high lobs, banana kicks and overhead kicks. Recapture posession of the ball with a sliding tackle (the wetter the pitch, the longer the slide!). Should the opposition get within range, you gain control of your goalkeeper to prevent the inevitable shot from reaching the back of the net.

Throw-ins, corners and goal kicks all play their part in the game. Attention to detail is one of Microprose's hall marks and MicroProse Soccer has not been left wanting in any respect. The colour of the players strips, strength of banana kicks and an action replay when a goal is scored are all excellent finishing touches to an already brilliant game. Overall, MicroProse Soccer has to be the definitive football simulation – be there for the kick off!

C & VG Game of the Month – 95%
'Undoubtedly the best football game ever produced – miss it at your peril!'
C & VG

Zzap Sizzler – 90%
'One of the best soccer sims I've ever seen. Little touches like the rain on the pitch and banana shots really make it something special.'
Zzap

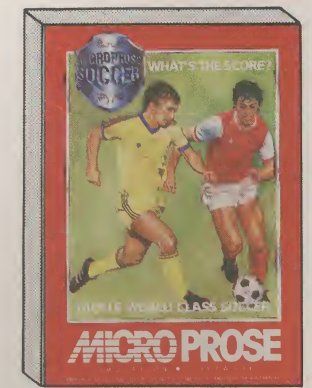
TGM Star Player – 89%
'MicroProse Soccer is of the highest quality – its fact action makes it far more playable than other soccer games.'

RELEASE SCHEDULE

AMIGA	SOON	£TBA
SPEC 128	OUT NOW	£ 9.95
SPEC +3	OUT NOW	£14.95
AMSTRAD	OUT NOW	£14.95 cs £19.95 dk
ATARI ST	NEW	£24.95
IBM PC	SOON	£TBA
C64/128	OUT NOW	£14.95 cs £19.95 dk

RATING OUT OF TEN

GRAPHICS	8
SOUND	7
STRATEGY	9
PLAYABILITY	9
OVERALL RATING	9



MICROPROSE
SIMULATION • SOFTWARE

UNIT 1, HAMPTON ROAD INDUSTRIAL ESTATE, TETBURY, GLOS.

- Console competition hots up
- MicroProse launch new labels
- Rob Hubbard: where is he now?

AWASH WITH CONSOLES...

Atari's 6502-based console, the 7800, should arrive in British shops in the next month or so backed by a comprehensive range of games from the likes of Electronic Arts, Activision and Epyx. Compatible with cartridges for its little brother, the 2600 console, the 7800 offers rather more sparkling graphics: 16 graphics modes are available to programmers, and they can be mixed 'n' matched just about every which way, according to a technical spokesman from Atari.

At the moment, games are being converted from American NTSC versions so that they will run on the PAL system to be sold in the UK, but new original games have already been commissioned from a software house in the north west of England. A team of ex-Imagine programmers have apparently contracted to produce six original games per year. Classic 7800 titles already available in the States include *Summer Games*, *Winter Games*, *Commando*, *Impossible Mission*, *Ballblazer*, *Super Huey* and *Choplifter*. Perhaps the most interesting title in the lineup is a game called *Tower Toppler*, published in America on the US Gold label. UK gameplayers will already know it as *Nebulus*, from Hewson.

The 7800 has reached the number two slot in America according to our source within Atari, overtaking the Sega in the race for console domination which has already been soundly won by Nintendo. Over 11 million 8-bit Nintendos have been sold in the States, and these days one in five American households owns a Nintendo console.

Atari refused to name firm prices for the 7800 and its software as we went to press, but the console is likely to sell for less than £80 – probably £69.90 – and cartridges are likely to weigh in at £12.95 or £14.95 depending on the complexity of the game they contain.

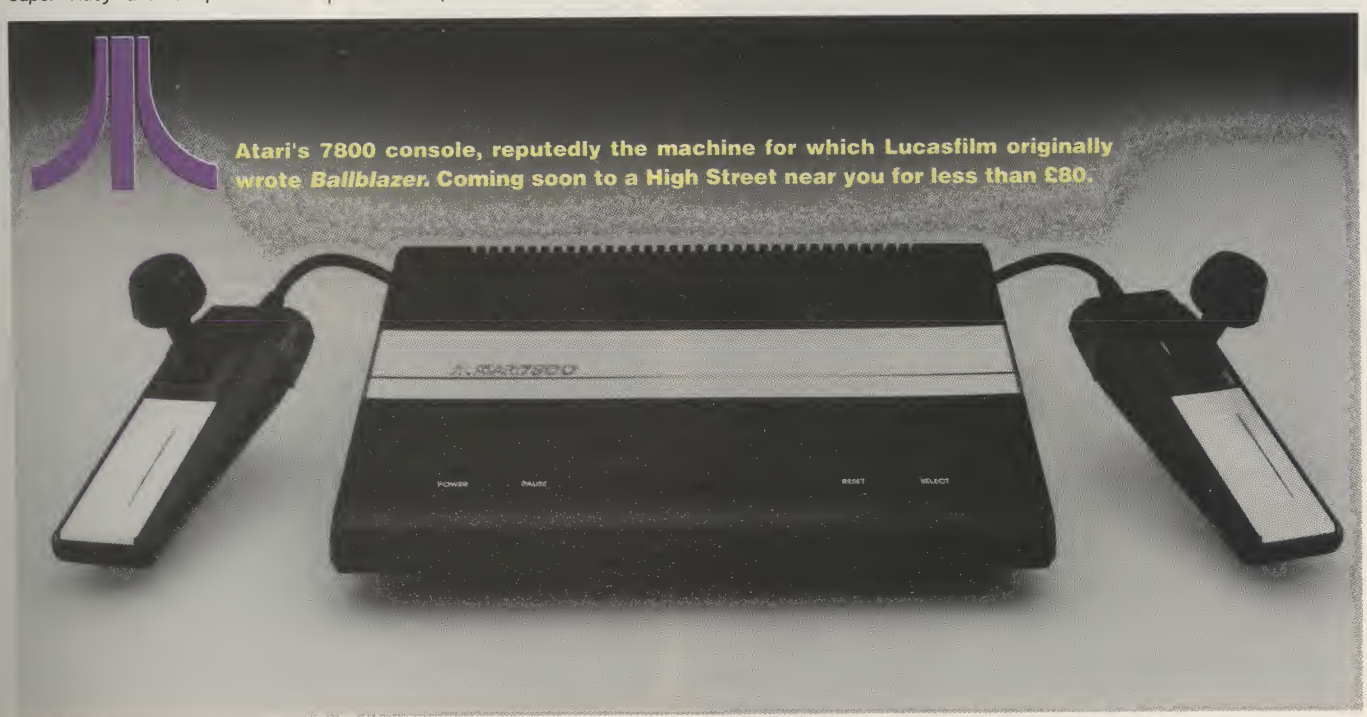
HAND HELD ACTION

Rumours arrive from Japan that Nintendo plan to launch their 16-bit response to the 16-bit Sega later this year, although it is unlikely to reach British shores before 1990 at the earliest: there's still plenty of room yet for 8-bit Nintendo sales over here as it is. A hand-held Nintendo console is also rumoured to be in the offing, but only in Japan for the time being.

The 16-bit Sega Console: soon to have a Nintendo 16-bit rival...

Not to be outdone, the Americans are working on a hand-held games machine. Rumours have been circulating for some while that Epyx have been planning a console that bridges the gap between hand-held games machines and the 'traditional' console. According to industry trade paper CTW, Epyx have confirmed that their new machine will be unveiled at the June CES Show in Chicago, and while Epyx are not yet releasing any technical details, the unit should go on sale in America during July this year for less than $150, which would indicate a sub-£100 price for a UK launch. Founder and director of Epyx, John Brazier, has confirmed that the machine is due to arrive on these shores in time for Christmas next year...

Finally, a CES launch could well be on the cards for the American version of the PC Engine: and if the Engine is indeed launched in the States later this year, leading American software developers are likely to start producing games for both the Engine and its CD-ROM drive. Further news on the direction games design is taking with the impending arrival of CD ROM drives in the home can be found this month in our CD feature.



GOLD AT THE END OF THE RAINBOW

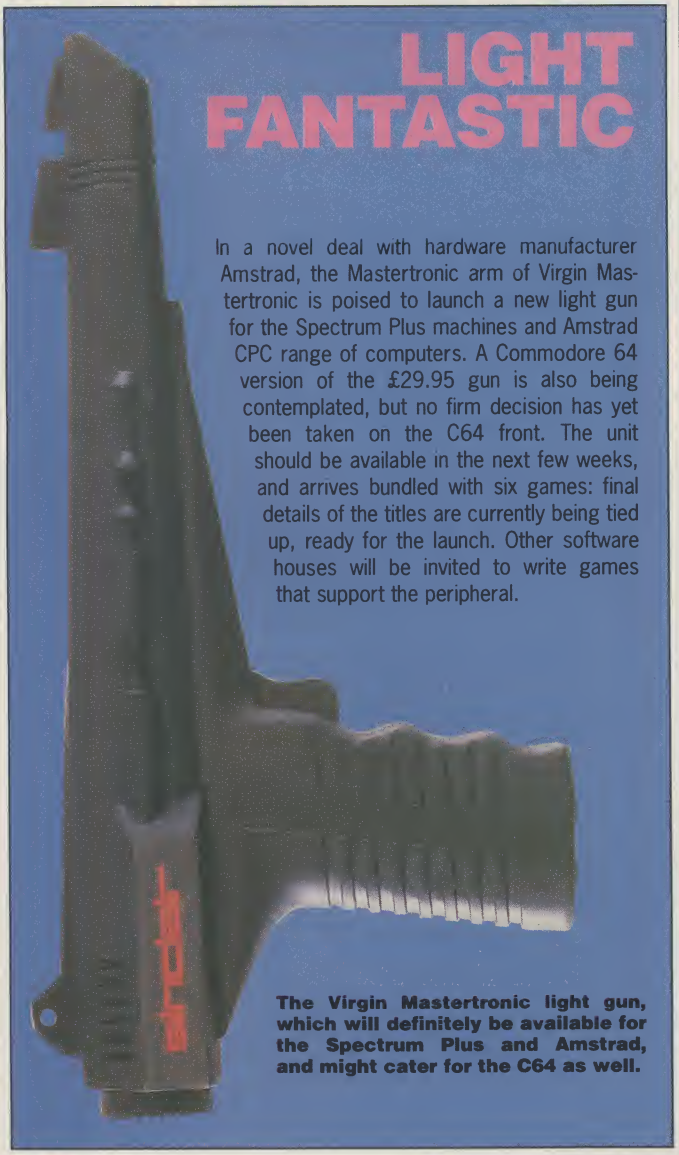
German software publishing group Rainbow Arts has severed its links with US Gold and is to go it alone in the UK market from now on. *Grand Monster Slam*, the first title to be published solo in Britain, is reviewed this month and should be in the shops under the Golden Goblins label by the time you read this. Rainbow Arts is currently pondering the price point at which it will be entering the market: their games will be full price, but whether that means £15, £20 or £25 in the case of 16-bit product remains to be decided.

Next off the Golden Goblins line should be *Circus Attractions*, due later this month, and then *Spherical* is due before June. Flip back to the March Issue for full details of what to expect from the Rainbow Arts group of companies over the coming months.

Juggling is just one of the events in *Circus Attractions*, due soon from Rainbow Arts.

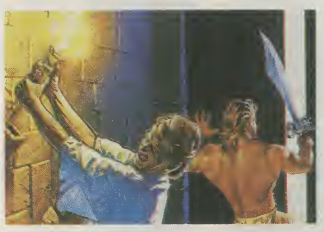
LIGHT FANTASTIC

In a novel deal with hardware manufacturer Amstrad, the Mastertronic arm of Virgin Mastertronic is poised to launch a new light gun for the Spectrum Plus machines and Amstrad CPC range of computers. A Commodore 64 version of the £29.95 gun is also being contemplated, but no firm decision has yet been taken on the C64 front. The unit should be available in the next few weeks, and arrives bundled with six games: final details of the titles are currently being tied up, ready for the launch. Other software houses will be invited to write games that support the peripheral.



The Virgin Mastertronic light gun, which will definitely be available for the Spectrum Plus and Amstrad, and might cater for the C64 as well.

NO DUNGEON ON THE A500



FTL have finally admitted defeat in the quest to produce a version of the ST classic *Dungeon Master* for the Amiga 500. They simply can't fit the code into an unenhanced Amiga, and feel that the reduction in the cost of memory enhancements, combined with the increase in demand for 1 Meg games, means that it's not worth compromising. More and more people are upgrading their machines, thus coming within range of the full Amiga implementation.

"Any effort to reduce the size or complexity of the game would result in a product wholly unacceptable to FTL Games" is the official line, so A500 *Dungeon Master* has been aborted. Sad news for A500 owners, who won't be able to enjoy the original game or the imminent *Chaos* upgrade which adds new dungeons and quests to the original game.

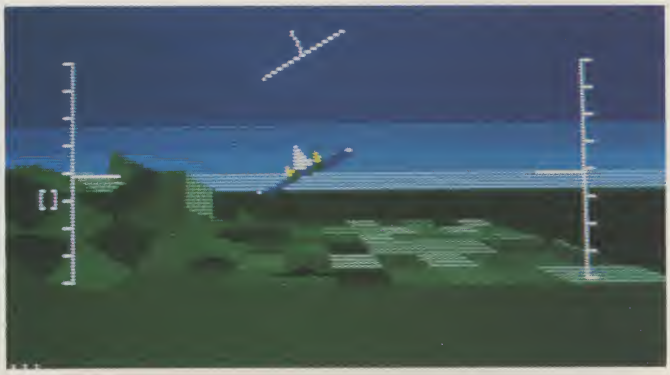
Dungeon Master II is currently underway at FTL's American HQ and will be published in Britain by Mirrorsoft in due course. Meanwhile, for full details of the latest Imageworks, Cinemaware, FTL and Spectrum Holobyte products, check out the 'ACE On The Road in Amsterdam' feature that appears on Page 14.

FOFT UPGRADE UNDERWAY

Following reviews which marked the ST version of *Federation Of Free Traders* as flawed, Gremlin are taking steps to ensure that the Amiga version is as polished as possible. "Everything is there in the ST version" the Gremlin supremo Ian Stewart kindly explains, "but we just got a little too close to the game during development. We're actively taking note of the critics while preparing the Amiga version."

Gremlin are working on a sub-manual that includes a start-up guide to *FOFT* and will accompany the existing *FOFT* documentation in the Amiga packaging. Once the Amiga version has been tweaked and released, ST owners will be able to acquire the ST *'FOFT* remix' and a copy of the supplementary manual by sending their original *FOFT* disk to Gremlin with £1 to cover P&P costs.

Meanwhile, if you're having a bit of difficulty getting the most out of *FOFT*, take a peek at the Tricks 'N' Tactics section this month, and remember, Gremlin have a full helpline service on 0742 753423. As soon as the ST disk exchange service comes into being, we'll let you know.



C-Light **is a new 3D graphics package from Artronic, which will allow Amiga users the chance to build pictures like this from a combination of simple 3D shapes. Contact Artronic on 0423 525325 for more information.**

MICROPROSE EXPANDS HORIZONS

Two New Labels Launched and Telecomsoft Acquired

Honda RVF biking, in the first release from new label MicroStyle.

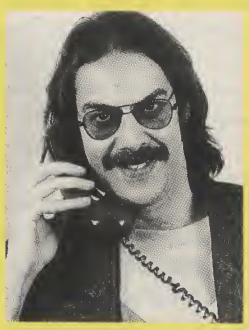
As we went to press with this issue, MicroProse and British Telecom had apparently 'reached agreement in principle' over the sale of Telcomsoft's three labels, Rainbird, Firebird and Silverbird. No firm details were available, but it is rumoured that the Virgin/Mastertronic group might well acquire rights to the Telecom back catalogue for budget release from MicroProse while the main labels Rainbird and Firebird transfer to MicroProse. Further details as and when they become available.

Whatever comes of the Telecomsoft deal, MicroProse is clearly gearing up for some serious expansion. A deal has been signed with Hewson under which MicroProse will release the cream of the Hewson arcade crop in America, while back in England the 'Prose people will be dealing with Incentive's 16-bit marketing as well as releasing *Universal Military Simulator II: Nations at War*. Incentive's *Dark Side* and *Total Eclipse* are due out later this month on a brand new label – MicroStatus – under which Microprose plans to release games that require a bit of brainpower to complete. Complementary to the MicroStatus label is MicroStyle, set to feature super-slick shoot-em-ups. *Xenophobe*, *Rainbow Warrior* and *RVF*, a Honda motorbike simulation, are raring to go any day now. More details in the Previews section...

FEATURED IN Radio ACE

ROB HUBBARD ★ INTERVIEW

For over two years Rob Hubbard held sway over the C64 music scene, with public adulation and a fair number of awards under his belt. Then, without so much as a fond farewell, he disappeared practically without trace. ACE spoke to Rob in Foster City, California about his sudden exit...

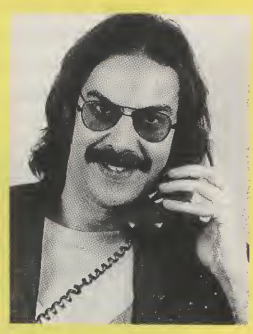


"I had been doing C64 and other eight-bit stuff for some time, and the ST was just starting to happen when I spoke to Mark Lewis, the head of Electronic Arts UK. He expressed an interest in my doing some sounds for them, and arranged a visit to the States for a few months, which I enjoyed immensely. I came back to Britain for a while, but when EA offered me a permanent position I took it."

Since he had a stranglehold on the computer music scene in Britain, Rob's decision to pack it all in and move to America may have seemed strange to his many fans, but Rob confides his motives at the time: "I was starting to get a bit bored with the eight-bit computers, simply doing the same sort of thing but on different machines. I wanted to experiment more and America is really at the forefront of technology.

"It's a different market over here: the main machines are IBM compatibles, some C64, a bit of Amiga and a bit of Apple II GS. I first started on the Tandy IBM, writing a digitised sound routine for the Tandy's four-voice sound chip.

"The main problem I have now is supporting all the non-standard sound boards for the PC, which include the Ad Lib, CMS (Creative Music System), Roland MT-32 (a 32-voice generator: Rob's favourite), and the Music Feature Card, not to mention a number of digital to analogue converters. There are also rumours of two new sound boards which employ the Amiga's sound chip and the C64's trusty SID!

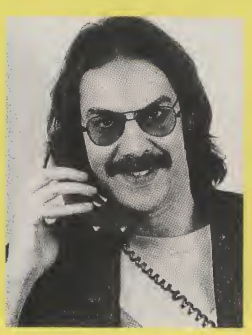


"To get around this, I now compose music using the *Voyetra* package on a PC, and store all the tracks as MIDI files. I have a different MIDI driver for each different sound board, and when the program detects specific hardware, it simply loads the correct driver overlay from disk and then uses the single MIDI file through the driver.

"The big advantage of this is that it saves so much time only having to produce one music file: and it's also quicker to compose on a synth than in hex!"

So what of plans for the future? Rob, like everyone else, is waiting for the optical disk revolution to happen: "EA have a Phillips CDI machine – which is one of about three in the country – and there are already a number of formats, with CDI, DVI, the PC Engine CD ROM, the Tandy read/write optical disk system and the NeXT machine which is a 68000 machine with read/write CD drive. The beauty of all these is that they're ADPCM-based: I can simply record to disk like a normal CD.

"Although I am now able to write using conventional synthesizers, the real challenge is doing clever things with the software. I'm already trying to create intelligent interactive music on the PC, as a precursor to the arrival of truly interactive games. For instance, I'll write a backing track that plays continually, and then as the action hots up, I'll overlay other voices to spice up the soundtrack accordingly, and vice versa. This technique is featured in my latest project, an interactive storytelling/adventure project for the PC."



Until CDI hits these shores (or Rob reappears in 1991, when his visa runs out) anyone who wants to sample Rob's recent work can listen to the Hubbard soundtrack on *Kings Of The Beach* from EA (best heard on a Tandy 1000 SX or TX), or catch a snippet of his latest music on the Radio Ace cassette.

ACE LETTERS

Time for some new topics old tight-wad decreed, pausing only to offer a measly #25 in prizes this month. And that to an oppressed minority! If you want to try to 'prize' open the Editor's wallet, get your missives in the post:

ACE LETTERS 4 Queen Street Bath Avon BA1 1EJ.

MONEY FOR VALUE?

Why is it when you buy software for the Amiga or ST it comes in a box big enough to get ten disks in, let alone one? Also when you open the box you have to dig through piles of adverts and books to find the disk.

When I buy software all I want is a box big enough to store the disk in and information on what keys to press to make it work. Also the screen shots on some of these boxes have not the slightest thing to do with what's inside.

After digging through the adverts and other assorted bits of paper, at last! The manual. No, it's not the manual - it's a book about the life story of the sprites on the screen.

I say cut down on novellas, cut down on other assorted junk, and cut down on software prices.

C A Shaw, Ilford

Hmm. And there was everyone thinking that novellas, posters and other goodies in the box made the software all the more worth owning. Have the marketing men got it all wrong?

GK

Time and time again you hear people moaning and groaning about the price of software. If the software is too expensive, why did they buy the computer in the first place? If someone else bought it for them, they must have asked for it.

I used to own a Spectrum Plus Two with over 370 games, and out of all of them I didn't have one copy. All my mates had between 25 and 100 copies because they said the price was too high.

Now I own a Sega which I have had for a very short time.The games cost between £15 and £30, and all the games I have played have been worth it.

Why does everyone moan. Are games really expensive?

Daniel Worf, Kent

Not so far as most software houses are concerned, that's fairly clear. But 370 original Spectrum games, even if most of them were budget titles or freebies with magazines, represents a large investment. Not everyone could afford such a collection of games.

Moaning about the price of software and 'greedy' software houses does no good, I agree, and is generally unjustified.

No matter how little spare cash you've got to spend on games, piracy is no solution to wanting more software than you can afford. It's theft, every bit as much as filling your pockets without paying down at the shops. The trick is to buy games more selectively – and there's no reason why two friends shouldn't exchange original copies of games (providing it is a genuine swap and backup copies aren't held onto).

GK

FIGHTING PLAN

During our lunch hour four of us decided to pop into an amusement arcade near our working place in Central London. Inside we were very surprised to find that, other than a female cashier supplying change, there was absolutely no sign of even the slightest female games-playing fanatic.

Could it be that the average British male has found something which is more appealing than the ever-so-average (but elegant) British female?

The next day, a visit to Virgin Records confirmed our suspicions – the computer department was infested with the male-only species of the human race. Not even our short mini-skirts and lacy black tights attracted their attention.

So that's it then. In the not-too-distant future, men MAY drop women for the joystick, MAY get the computer to make the dinner, or men MAY say 'not tonight darling, I've got a computer' to fading wives. These four office girls known as the Brooke St babies WILL fight to bring females into the arcades, females into computer games stores and females back into the British home as the NO 1 interest of the British male.

How? Easy, by playing games ourselves.

Janet, Anita, Susan and Chazala, London

Best of luck! And for the time being, that closes the debate on women and computing. Time for a new topic.

POSITIVE EFFECTS OF VIOLENCE?

I'm not only a parent, but also a Foster Parent. In view of this, please would you omit my name and address if you print this letter.

In reference to Adam Morley's letter about shoot-em-ups having little or no effect on the majority: this opinion can be reinforced here, I hope. I have in my care a 9-year-old boy who has had a very disturbed start to his life. Having the need to monitor him at various times in various activities, brought forward many observations.

We recently purchased an Amstrad CPC 464 for the three children in our home. The inner aggressions and turmoils our little foster boy has had locked away, and which even a qualified therapist was unable to unlock, were released through the hack-ems, shoot-ems, blast-ems etc etc he played.

My message is this. Let the do gooders experience the problems that many normal parents face from day to day. A computer

ON THE SPOT

This letter has a strange purpose. This purpose is to ask Sandra Vogel, who is one of the unspoken-for women computer users to refrain from making references to 'spotty 14-year-old boys'. I happen to be, unfortunately, one of these boys and it can be very unpleasant to have an unpleasant fact of life like spots used almost as a form of abuse.

Us spotty 14-year-old boys do not write letters complaining about the waste of space given to the modern, outspoken woman who wants to make her views on software targeting known.

And the answer to Sandra Vogel's question: the reason that games are male orientated is that many more boys play games than women. And what do the software companies want to do? They want to make money, and they do this by targeting their games to the average or most common user — BOYS.

James Ball, Chester

Another minority offended and now defended. Resisting the urge to mention spot prizes, glossing over new complexions that may have been put on the matter, there's just time to apologise to Mr Ball and any other similarly offended readers and attempt to make up for the insult with a voucher for £25 worth of software...

tucked away in a bedroom is quite often a damn good pressure release for many a family friction. Mind your business, and let people who really know mind theirs.
A Foster Parent

WEALTHY HORMONES
The unfortunate thing with censorship is that the voice of reason is always drowned out by the moral minority.

Girls get upset about sexy pictures because they are being used as objects, and I get upset as I am being treated like a bag of hormones with money. I find girls attractive, but using the female form and my own liking for the same degrades not only women but me as well.

Which is why censorship cannot be left to a profit making company or to the consumer. It must be in the hands of an independent body to draw the line in order to prevent the slow erosion of standards. This line is where the medium, be it book, film, computer game or whatever, fails to entertain or add to the quality of life, but instead shocks and degrades.

At the moment the line is drawn just about fine for society today. Freedom of choice must be allowed, but we need the right to say 'no'.
Timothy Bell, Dundee

Maybe there is a case for toning down advertisements, but who is to act as the independent censoring body?
GK

OVER THE TOP
Does anybody out there own an Archimedes? Ha ha ha, that was a good one.

I own a trusty rubber-keyed Spectrum from way back in 1982, and every day I use an Archimedes in school. I can safely say that the Speccy pees all over the Archimedes. People have slagged off the rubber keyboard for years, but have they tried using an Archimedes keyboard? It is too slow and confusing, with all the keys in exactly the wrong places.

And then we come to games. You would think a 32-bit computer would supply better games than a 48K one but no. This is not surprising when you consider there are less games for the Archimedes than there are for the Spectrum 16K which went off the production line years ago.

This letter is to let the country know what a great computer the Speccy is and what a load of garbage the Archimedes is!
Daniel Holling,
Isle of Lewis

Great computer though the Spectrum is, aren't you going just a little bit too far in condemning the Archimedes? Without the Archie, there'd probably be no Virus *for a start, and just you wait and see what programmers start doing on the games front once the Archimedes starts selling in serious quantities.*
GK

TIMELY ADVICE
I recently bought a game for my Atari ST on the strength of two reviews, one in Popular Computing Weekly and the other in New Computer Express. Both were glowing in their reviews of the game.

I could not understand why your magazine waited until the May edition to publish a review of this game, but I now see that your reviewer has actually play tested the game and come to the same conclusions I did.

The game in question is *Federation Of Free Traders*. It would appear that the other two mags were drawn into the hype surrounding this game and I doubt if they even took the time to load it into a computer before reviewing it.

In future I will wait for your reviews before parting with hard-earned cash and getting yet another ear-bashing from my wife when buying a new game.
C Symons, Purley

As is our rule, we waited until the finished version of FOFT *was available before writing our review — which meant that we followed the two weeklies and were over six months behind a couple of other monthly magazines! Reviewing 'early' or unfinished versions of games can easily lead to (an apparent) misjudgement on the part of the reviewer.*

Here at ACE we'll continue to review finished versions of games as soon as we can and leave the other magazines to fall over one another and do deals in the chase for 'exclusives'. We ain't being sanctimonious or anything — it's just that we believe that the version of a game that ACE reviews should be, to all intents and purposes, the game that our readers will end up buying.

Disappointed FOFT *owners can find some good news on the news pages (where else?) this month. Gremlin plan to offer you an upgrade fairly soon...*
GK

HOLY CLAIM
Do you remember all those eons ago in ACE Issue 5 and 7, there were some letters about *Leaderboard* hole in ones? The only hole in one shown on *Leaderboard* (not *World Class Leaderboard*) was by a Matthew Pedensen and Dad on their ST.

Well an 8-bit owner has got a hole in one. Me. I expect others have as well, but haven't written in. By the way, I own a C64.
Mark Fletcher,
Stoke on Trent

Everyone will be famous for fifteen minutes, according to Andy Warhol. You've just had your first five minutes' worth Mark...
GK

ALL JOIN THE FUN
I see multiple player games as the way forward in games design. Just imagine two, or indeed more parties in the same dungeon in the phenomenal *Dungeon Master*, or tens (or even hundreds) of player controlled characters in *Carrier Command* or... or... the list just goes on.

While you at ACE see large network (ie through modems and telephone lines) games becoming popular, I must disagree and argue the case for local area networks – ie through direct cable links. I believe that the cost of playing by modem could make the idea prohibitive to the vast majority of computer users. Add to this the fact that only a very small percentage of users own a modem, and this puts the cost up by the price of the modem and software to drive it (by no means cheap).

A direct link could be the most viable alternative to the majority of computer users – indeed many games already support this option – *Powerdrome*, *Midi Maze*, *Falcon* to name but a few. The only problem with this form of link is the amount of equipment which must be gathered together in one place, thus limiting the number of players to the capacity of the room.

While on the topic of multi-player games, I would like to appeal to software companies to produce more games which utilise the *Gauntlet II* and *Leathernecks* 4-player joystick adapter, as this breathes life into shoot-em-ups.
Scott Ramsay, Glasgow

Would any ACE readers out there who are currently joining computers together and playing games remotely against other humans like to drop us a line?
GK

NEXT MONTH...

ACE gets back on the road on 1st June, when Issue 22 arrives on the shelves. Check it out, check it out.

JON BATES **gets to grips with tone modules and continues his friendly guide to making music with your computer, while...**

BRIAN LARKMAN **gets ready to go on his hols and casts a professorly eye over readers' artistic submissions to the ACE gallery, while...**

STEVE COOKE **continues his foray into the world of Role Playing games on computer, while...**

We tell you more about Compact Disc Interactive – Philips reveal a few of their secrets, while...

The full ACE reviewing service gets into overdrive. Don't part with your dosh till you've read our full-colour evaluation for YOUR machine.

ACE ON THE ROAD TO AMSTERDAM

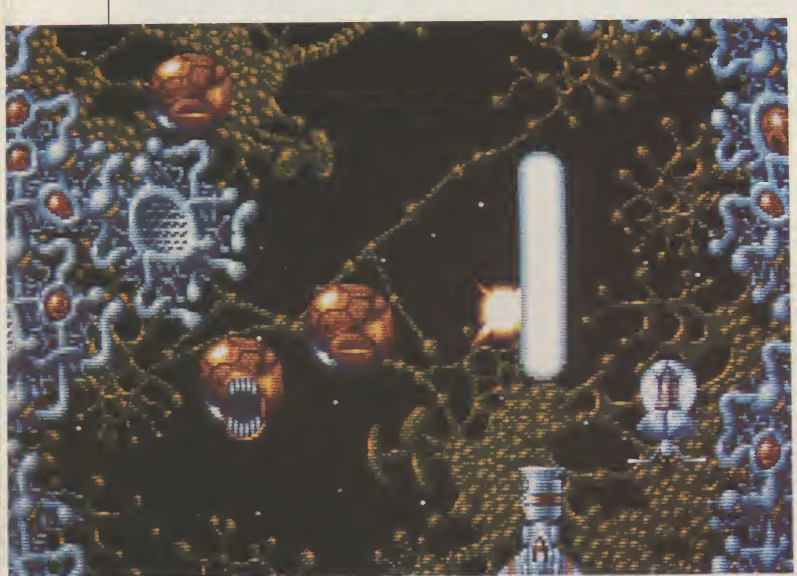
What better place to introduce the Bitmap Brothers and their new game *Xenon II* to the world's press than Amsterdam? And while everyone was assembled in the Dutch capital, Mirrorsoft took the opportunity to divulge a hefty chunk of information on their forthcoming releases. Graeme Kidd checks out what's going down...

Since we last went on the road to Mirrorsoft (just before Christmas) one or two of the Imageworks titles have suffered from delay. Three 16-bit only projects, *Paladin*, *Terrarium* and *Crimetown Depths* won't be appearing until the latter part of this year, and although *Phobia* is complete on the Commodore 64, Imageworks are holding on to it until Tony Crowther has got to grips with the Amiga and has finished the 16-bit versions planned. Meanwhile, new projects are well underway, and leading the field is *Xenon II – Megablast*, the latest offering from the Brothers Bitmap.

ALL BITMAPPED OUT

Those pesky Xenites are waging war on Earth once again, only this time the varmints are messing with the fabric of time. Bombs have been planted in the time-zones that make up our planet's history and, if the Xenites manage to detonate them, the passage of history will be altered and Xenite domination of the world will be assured. So it's time to hop into your trusty space cruiser, young fellow-me-lad, and zip off on a six-sector quest to save everything we hold dear. Plenty of extra weapons can be collected on the way, including a minelayer that allows a trail of delayed-action bombs to be laid on the screen, and the usual array of mega-powerful laser options.

The Bitmaps have been working with Bomb The Bass on the soundtrack that accompanies the game, and while this sequel is also a vertically-scrolling shoot-em-up, this time there are three levels of parallax scrolling, and the player can dip in and out of all three. The action is fast and furious in the playable demo that currently exists, and ST, Amiga and PC owners can expect to be well impressed come Summer when *Xenon II* is scheduled to hit the shops.



Equipped with a well 'ard beam weapon, hacking through hordes of raving mutants in *Xenon II – Megablast*.

HUNTING BUGS IN SHOGGLEWAGGLE

DDT is set to be one of the prettiest arcade adventures ever produced on the Amiga: the Amiga's Hold And Modify graphics mode is to be used throughout this scrolling platform game, and from the early screens demonstrated, the effect is impressive. PC, ST and C64 owners are also in line for a treat later this year; while the graphics will obviously change from machine to machine, the gameplay and ten-world play area will remain the same in all versions.

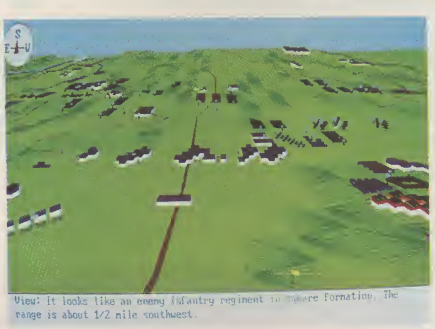
Playing the part of an apprentice Dynamic Debugger taking the final tests that will lead to qualification as a Licensed Debugger, and a lucrative career on the bug-infested world of ShoggleWaggle, you aim to rid all ten gameworlds of pesky creatures. Tools of the trade need to be collected and used appropriately in true arcade adventure style: look out for bug-sucking vacuum cleaners, a DDT gun and a champers bottle that fires killer corks.

***DDT*, the continuing story of man's battle against insects...**

Amiga – HAMming it up in *DDT*, on the quest to become a qualified debugger.

GOING TO WAR

Mirrorsoft's PSS label is about to experience a resurgence: all has been quite on the wargame front for a while, but soon PC and Amiga versions of *Waterloo* are due to hit the streets at £24.99. Historically accurate, the game offers 3D views of the battlefield and allows orders to be issued to your generals: they interpret your commands in accordance with their character traits, so whether you opt to play Napoleon or Wellington, the experience is close to the reality. Enhanced 16-bit versions of the PSS 8-bit classic *Theatre Europe* are also imminent.



PC – Examining part of the Waterloo battlefield.

GOING TO THE MOVIES

Despite reviews to the contrary, Cinemaware's *Lords of the Rising Sun* is still not finished as these pages are being written, but we should be able to bring you a review of finished version next issue. The *TV Sports* series is due to be beefed up with a couple more releases in the coming year, but the next movie-inspired release is to be *It Came From The Desert*, a spoof on 1950s B-Movie horror films. Few details are available as yet, but the town of Lizard Breath in Arizona suddenly becomes plagued by giant ants that arrive after a meteor storm...

Spectrum Holobyte are about to release the first in a series of Mission Disks to complement *Falcon*: details on price and availability are still sparse, but the first disk replaces Disk Two in the *Falcon* package and offers a new world to fly over and a dozen new missions to attempt. And a brand new simulation is due for 16-bit machines later this year: *Vette*. Sat in the driving seat of the ultimate American sports car, the Corvette, the player can take on a selection of classic sports cars in a road-racing contest through the streets of San Francisco.

There's plenty more promised from both Spectrum Holobyte and FTL, but for the moment everyone's keeping quiet about the details. More news as and when we get it... ●

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Amiga screen shots shown

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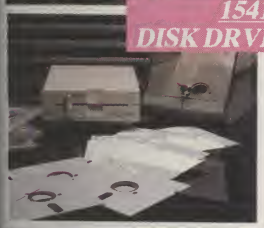

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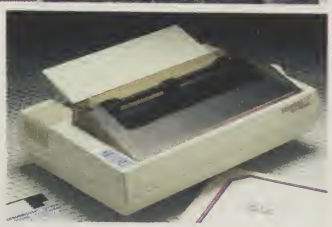

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FLAMING JUNE PREVIEWS

Heavyweights in the lightweight C2 category are Spice Engineering who are not only gearing up to put two cars into the C1 category and take on the likes of Jaguar and Porsche, but who have also been busy giving help and assistance to Artronic in the design of a driving sim centred on some of the world's most famous circuits including Le Mans. Amiga and ST versions should be out the week before that great 24hr race kicks off.

RVF MicroProse

Kicking off the 'Prose MicroStyle label on ST (swiftly followed by Amiga) will be this motorbike simulation based on the Honda RVF machine (Ooooo! An RVF!) As 'Prose are keen on accuracy they've been studying videos of some of the world's most famous circuits along with a load of technical data from Honda themselves, so expect plenty of realism mixed in with the knuckle-whitening action.

That's you in the natty red leathers, gunning the engine and going for it.

INNER SPACE
CRL

Eeek! Harry Crixxan's been transported to the ninth dimension – a land of darkest phobias – where there are nine levels of attacking alien waveforms intent on destroying him! Only you can save him (the poor lamb, 'e was only trying to escape the matter splatter bomb, when it all 'appened). So stand by to enter hero mode.

C64 – Have you got what it takes to save Harry, and the day.

Amiga – A high-speed fly-past in your F-111F

SPORTING TRIANGLES CDS

Pay attention 'cos I'll be asking questions later. But seriously folks, get swotting and brush up your sporting knowledge because the latest addition to the ever lengthening list of sporty quiz games is this CDS offering based on the popular TV series. Watch out for it, coming soon.

'I'll have a P please Bob' – oops! wrong show.

BOMBER Activision

Want to fly lots of different planes on exciting missions, but can't afford all those flight sims? Activision to the rescue with *Bomber*, a multi-aircraft flight sim with the emphasis on action. Soon you'll be able to climb into the cockpit of your F-111F (remember Libya?), or your MIG-29, or even your Saab AJ37 if that's more your style.

SHINOBI Melbourne House

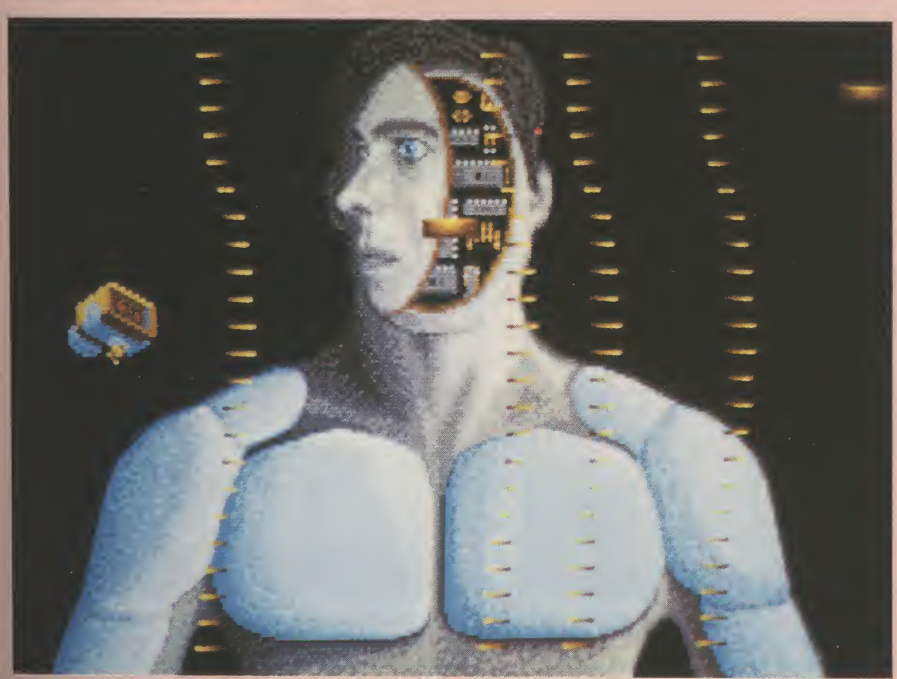
The Sega version is already out, but coming soon for both 8- and 16-bit machines will be MH's conversion of the hugely popular coin-op. You, as a ninja hero, are out to rescue some children kidnapped by an evil gang of rival ninjas. The children have been stashed in different locations throughout the world and are constantly guarded by karate thugs, so you'll have to put your shuriken, nunchaku and sword to good use

ST – That chappy on the tea chests does not look too friendly. Best get ready for a rumble.

HYPERFORCE Addictive

WOW!!! An arcade challenge over 30 levels that first appeared on the C16 several years ago and was written by our old friend TONY TAKOUSHI!!!! The ST and Amiga versions due for release SOON! promise to be just as HECTIC, WRIST-TWISTING and FINGER-BENDING as the original. JUST LOOK AT THOSE GRAPHICS! We've told you a million times, don't exaggerate!

Could it... nah, couldn't be our Tone...



NIGHTBREED Ocean

Fans of Clive Barker (he of Hellraiser fame) will soon be able to play the game based on Nightbreed, his latest film. Apparently *Nightbreed* contains some of the most exotic and terrifying creatures ever to be seen on the screen, so the game promises to look quite spectacular...

TANGLED TALES Origin

This light-hearted, witty approach to traditional fantasy role-playing adventures has the player cast in the role of a wizard's apprentice with three increasingly difficult tasks to perform as proof of his/her wizardly worthiness. There are over 50-odd (and strange) characters to meet in this Icon and menu driven RPG which tries to lighten the usually dark and gloomy mood of most games of this genre.

A snowball is hardly likely to give you much of a headache: is it?

ACE ON THE ROAD TO PINNER

Suburban paradise Pinner is now home to System 3, who are busy fighting a war against static on the carpets of their new offices. Game development on the C64 is regularly interrupted as yet another SID chip bites the dust, zapped by an electrical charge that has built up inside a member of the in-house programming team. Despite these setbacks, work is barrelling ahead on a clutch of releases: five original games, across most formats, are due from the System 3 stable during the course of this year.

First game off the starting blocks will be *Dominator*, a multi-level horizontally-scrolling shoot-em-up that takes place inside the biomass of a huge alien creature. All versions should be complete and in the shops by the end of this month.

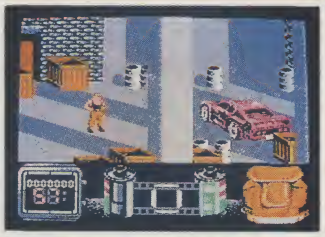
When we were in Pinner, the games were virtually complete: graphics were nearly finalised, but gameplay was still being tweaked. *Dominator* looks particularly impressive as a Spectrum game, but all incarnations are packed with gutsy background graphics that seem almost moist and

Spectrum – Scrolling along past some bees that have colonised the gullet of the alien in *Dominator*. At this stage of the game, none of the add-on weapons systems have been bolted onto the ship.

stringy to the touch. Hacking along inside the squidgy bits of a giant alien is a potentially yucky experience. The 8-bit versions, like all 8-bit System 3 games from now on, are multiload: bossman Mark Cale says "it's the only way to give players value for money."

KIDNAP SHOCK

Following in the footsteps of *Last Ninja II* – due on the PC, ST and Amiga early in June – is *Vendetta*, a four-level arcade game which sets the player on a mission to catch up with a gang of kidnappers. Taking the part of a vigilante character, the player must complete arcade adventure sections and then drive to the next location. Evidence must be collected on the quest to catch up with the kidnappers, as well as useful items and weapons. From the point of view of the police, the hero is engaging in criminal activities, so unless he can prove his



C64 – The end of the first arcade adventure section in *Vendetta*. Collect the car keys and you can get on the road...

motives to the boys in blue they'll let the real baddies go and arrest him instead.

Four stages each contain a mission section in the style of *Last Ninja II*, but the 3D environment is that bit more realistic: you can pick up a videotape, for instance, and load it into a VCR to see an image displayed on the screen. Setting out armed only with fists, a camera to collect evidence for the police and a rucksack to store weapons and other items collected on the way, the hero's first objective is inevitably to get tooled up. Four weapons are available – an AK47, hand-grenades, a bazooka and an Uzi sub-machine gun – and ammunition is stashed discreetly around the place. Fighting past baddies, the vigilante must reach the end of the current section with all the evidence and useful items he has found along the way, then leap into a car to drive to the next location.

Vendetta is played against the clock – one hour of gametime is available within which the mission must be completed – and there's more than one route to each destination. Knowing the shortest way saves time, so finding a map is a useful bonus. On the driving sections, helicopters and planes zoom in to attack and, although the car does have its own defences, collecting the appropriate keycard in the adventure section allows you to access an automatic targeting computer that makes shooting the bad guys out of the skies rather more straightforward. The car itself is indestructible, boasts two weapon systems and a turbocharger, and offers the driver the option to select gears manually or use the automatic gearbox.

Late June is the target release time for 8-bit versions of *Vendetta*, with ST and Amiga software to follow late in August.

ELEPHANTS' GRAVEYARD

Tusker, an arcade adventure in which an Indiana Jones style character embarks on a quest to find the Elephants' Graveyard, is well under way, following one or two false starts. The finished game should arrive on 8-bit machines during August, with 16-bit versions following a month later.

The hero indulges in plenty of hand-to-hand fighting on a journey through four levels, each level consisting of three sections in which useful items and weapons have been hidden. Starting out in the desert, the hero makes his way through jungle and water to the next section where a native temple has to be explored before the action moves on to a native village contained in the third load. Finally, a magical garden is reached and the Elephants' Graveyard is found in a surreal tropical paradise at the end of the last load.

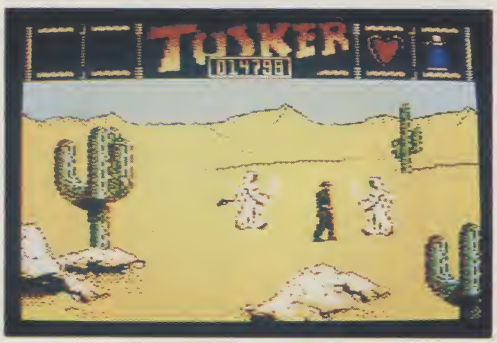
AUTUMN GOODIES

When the year draws to a close, System 3 plan to launch a tennis game – no details available on that one yet – along with a multi-load, multi-level arcade adventure that takes the player through all the legends of the world. Battle through Hades, take on Achilles and hustle through Valhalla: just about every mythical land is featured, complete with appropriate nasty inhabitants.

And, of course, System 3 are committed to the Konix Multi System. Development systems were shipped by Konix to software developers at the end of March, and both *Last Ninja II* and *Vendetta* should be unveiled on the Konix console during the PC show in September.

"We're going for the awards," System 3 supremo Mark Cale asserts, proudly showing us around the new offices that will soon be packed with programmers and artists. With the strongest line-up of products it has ever had, System 3 just might have cracked it come the giving out of gongs after Christmas. ●

C64 – Driving along the road to the next load in *Vendetta:* mind that police car. Due on all five major computer formats, *Vendetta* will also lend itself well to the Konix Multi System, according to Mark Cale, so naturally System 3 are writing it for the Konix too...



C64 – *Tusker:* the hat-wearing, leather-clad hero abut to join battle with a couple of sabre-wielding Bedouins in a dusty desert encounter.

C64 – Troublesome monkeys hurling rocks from the trees and charging wild boar can both cause problems on the journey through the jungle.

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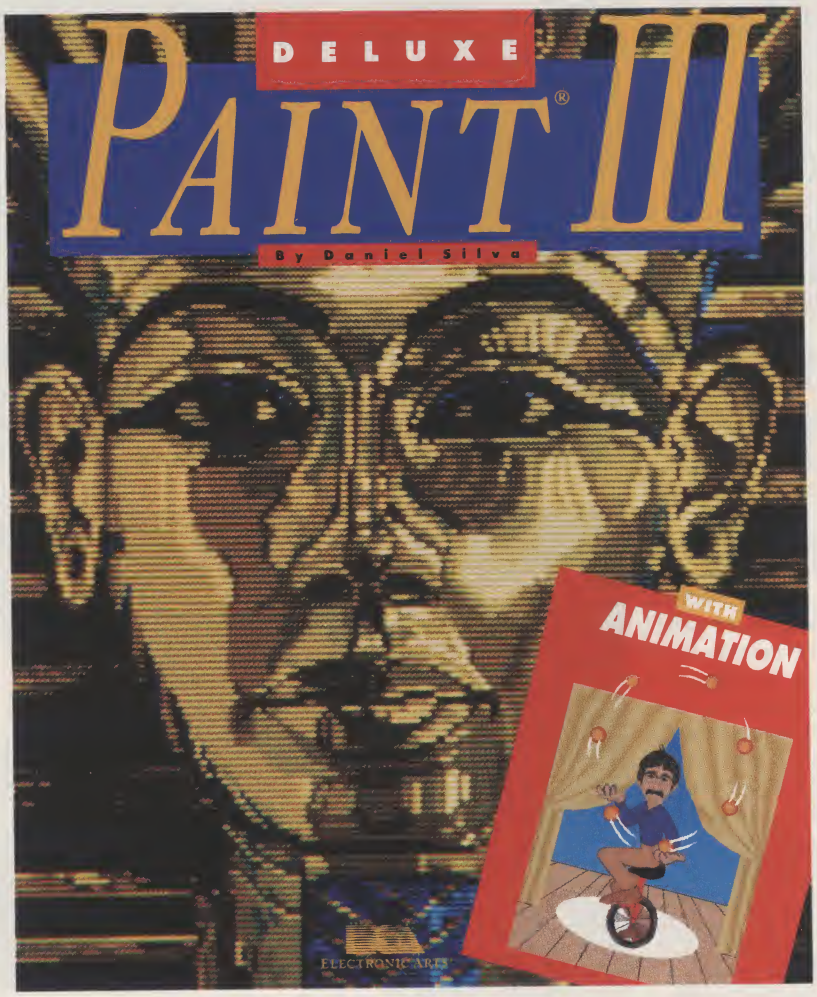
8 New Paint Features

DeluxePaint III also adds sophisticated features to the number one Amiga paint software: Extra-halfbrite support for 64 colours; direct overscan painting for desktop video; wrap and tint brush modes for special effects; better font support; improved compression; and many performance enhancements, including faster perspective. Product requires 1MB of RAM.



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Electronic Arts Ltd., 11/49 Station Road, Langley SL3 8YN, England.
Allow 2-4 weeks delivery. DPaint I owners can upgrade for £55.

ELECTRONIC ARTS®

ARCADE ACE

Andy Smith teams up with a mythical creature and a couple of not-so-mythical hard men in this month's up-to-the-minute round-up of all that's new and happening in the arcade scene.

SAINT DRAGON

Jaleco

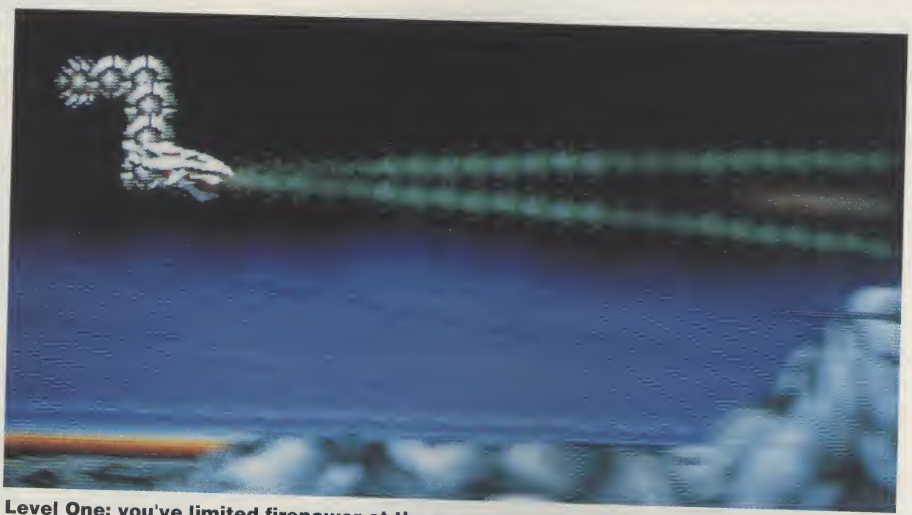
The Japanese have some wacky ideas when it comes to game titles. *Bad Dudes versus Dragon Ninja* was bad all right, but *Saint Dragon*? Still, they know how to make hit arcade games and, judging by the success it has gained in Japan, *St Dragon* is destined for the top over here.

After a quick look at the screenshots, it will come as no surprise to learn that this is a one player horizontally-scrolling shoot-em-up over six stages. You control the saintly serpent itself and must manoeuvre through the stages shooting the flying and ground-based aliens that infest the place.

So far, so standard: but, as might be expected, there are a couple of twists in the tail. Being in the form of a dragon, you have not only a head, but also a trailing body which coils and loops as you move around the screen. This could be a major problem if you had to dodge all the flak dished out by the aliens, but fortunately the body can absorb shots, so it's just your head that requires protection.

That said, you can't afford to get blasé, because contact with any aliens on any part of your body causes you to lose a life: and here's the next little trick. In a normal bog-standard arcade game you can pick up extra weapons which improve your firepower. The same is true here, but whereas normally all the extras disappear when you lose a life, this doesn't happen in *St D*. Just as well, because the sheer number of aliens means you'll need every bit of help from the ring laser shots or bouncing bullets that you can get. Not merely because some of the pesky devils hide themselves in crevices, but also because there are a fair number of bigger-than-average enemies to dispose of: such as metallic panthers that spring up from the base of the screen just when you are hacking through a particularly prolific wave of aliens.

So it's got a couple of extra features, but it's just another shoot-em-up, isn't it? Well, yes: but it's certainly one of the classiest to appear since *R-Type* and the difficulty-tuning hits just the right spot between frustration and addiction. If you're looking for a 'top of the range' shoot-em-up, *Saint Dragon* is the business. ●



Level One: you've limited firepower at the moment, but luckily there's not much around.

That's better: taking out some alien installations with your multi-way firing.

The first end-of-level guardian, a huge mechanical bull. You're armed with ring lasers, so he shouldn't be too much trouble...

Level Two: things are beginning to get just a little tricky now.

EXTENDED PLAY...

FIGHTING HAWK
● Taito

A vertically-scrolling shoot-em-up in the *Flying Shark* mould, involving much downing of enemy fighters and bombing of ground targets, with bullets and guided missiles, as you fly through five stages of enemy territory trying to ultimately destroy the new enemy bomber 'Dragon Hat'. Unoriginal, but very enjoyable.

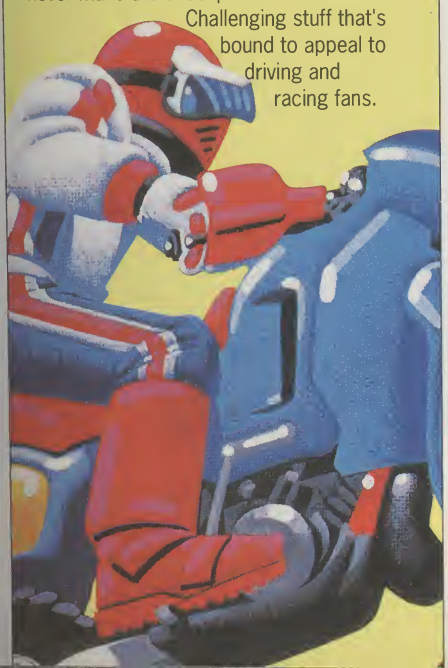
NASTAR ● Taito

You courageous young thing you, braving a tribe of evil ghouls and ghosties to protect a sacred shrine in the land of Rastania. One or two players can join in this horizontally-scrolling hack-em-up that boasts loads of extra weapons to pick up and loads of baddies to kill, including end-of-level bosses, and loads of jumps and moves. Fans of *Rastan* et al will find it well worth playing.

RALLY BIKE ● Taito

This joystick-controlled motocross sim has you racing across the States through six stages avoiding all manner of obstacles including other road users and helicopters flying overhead. Pull into petrol stations to keep your fuel tank topped up or you'll never make the checkpoint in time.

Challenging stuff that's bound to appeal to driving and racing fans.



IKARI III

Right, who's next?

SNK

The quest of the Ikari warriors continues. These well 'ard butch guys have already proved they're tough stuff in two previous games of beat-em-up action, and now they're back. This time they've been drafted in to rescue a presidential candidate's kidnapped child (they don't mention which candidate's kid, but you can work out for yourself where the inspiration came from!) It would appear that the child has not in reality been kidnapped, but it's a good enough excuse for a scrap.

Either one or two players hack, chop and kick their way through the changing enemy territory, and fight against increasingly tough enemy soldiers, using an eight-way joystick and punch and kick buttons. The enemy appears from all parts of the screen, and many of them carry weapons such as knives and machine guns. A well-aimed blow can send the enemy home with a bit of a headache and relieve him of his weapon, which you can then pick up and use against someone else. Fail to pick up the item and it'll start flashing before it either disappears or – in the case of grenades and oil drums (?) – explodes, harming anything within blast range.

You get three lives for your money, with an energy meter at the top of the screen showing your state of health for each life. Apart from the 'one kick and 'e's dead' brigade, there are some meatier guards to destroy and end-of-level guardians to defeat, so you'll have your work cut out.

Ikari III has great graphics, great music and effects and great gameplay. Of course it's best played with a friend, but even solo it's got plenty of action and excitement to keep you pouring the money in.●

(Above) Preparing to meet the first end-of-level guardian. That knife's not going to be much help.

(Right) That machine gun should prove to be of much more use.

Thanks, once again, go to Electrocoin for all their help and assistance in producing Arcade ACE.

"In seven or eight years there will be a massive shakeout in the industry. Costs will rocket, games will become multi-million dollar productions..."

Phil Adams, Spectrum Holobyte President, interviewed in ACE a year ago.

CD interactive games could well include full-motion video sprites against computerised backdrops, just like this TV advertisement for Clarke's shoes produced by DMP Davidson Pearce...

CD INTERA

ACTIVATED

With the advent of the Compact Disc as a data srorage device, computer entertainment is about to enter a new era.

Tomorrow's game designer will work with full-motion video and HiFi quality orchestrated sound. Games will become more like movies, and the successful publishers will be those who have invested in teams that can operate in a multi-media environment.

The bigger companies are already bringing together musicians, scriptwriters, artists and directors and providing them with the software tools and authoring systems they will need.

The first fruits of these labours are beginning to be seen, and the hardware is a reality. But much more is yet to come...

You may have seen it on television: an advert in which a small boy and his dog are sprites in a computer game, taking on a massive monster armed only with a football. A clever ad, maybe: but could it really be a glimpse into the future direction of computer entertainment?

The answer is yes, it could. Already experiments with new technology and new ways of thinking about the nature of audiovisual entertainment are leading to a new form of computer gaming: and the buzz word is 'interactive.'

The hardware is already there, or nearly. The key will be Compact Disc storage, providing 600 megabytes of information on one single silvery disc. Already, the worldwide installed base of CD ROM drives has been estimated at some 110,000 units, with 15,000 units in Europe, most of these attached to IBM PCs or compatible machines, but some 5,000 linked to Apple Macs around the world. The PC Engine CD ROM is already forecast to sell 672,000 units in Japan alone.

But CD ROM storage can't improve the graphics or sound quality of the host computer it is attached to. The PC Engine games so far have been uprated versions of cartridge-based standards, and PC CD drives have been used to create a version of *Defender of the Crown* that sounds marvellous (have a quick listen to Radio ACE) but plays just the same.

The path of real progress lies in finding a way to mix genuine video pictures and music with computer control. Compact Disc video and interactive television have blazed a trail for entirely new forms of dedicated systems to be developed that will allow game designers to mix full motion video sequences with computerised action.

TALKING TO YOUR TELEVISION

Cinemaware have been working on interactive VCR games with Ideal in America. The View-Master Interactive Vision system is due to be launched in the States this summer, and although it is aimed primarily at children between 3 and 8 years of age, it offers the opportunity for the viewer to participate in a TV programme, making choices by waggling a controller or pressing one of five buttons.

This interactive VCR technology is fairly simplistic – 'great for kids' according to Cinemaware – but there's more to come. "We can't talk about it yet, but there are more capable systems in the VCR interactive world. With the other stuff we can do real interactive movies..."

MAKING MOVIES

Even the PC Engine could provide a user base large enough for software houses to start producing big-budget games that approach the complexity of movies, but the real contenders

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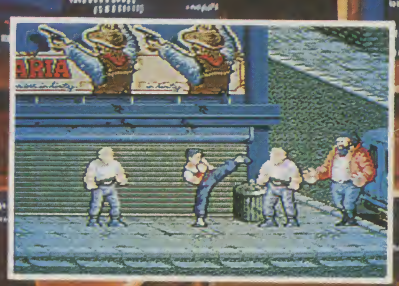

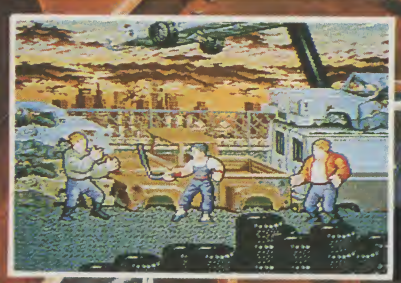

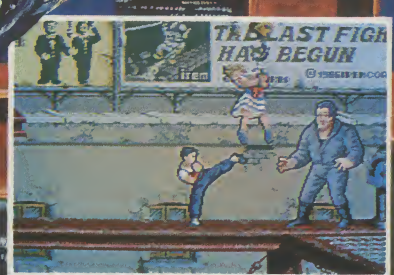

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A CDI pilot system

Back in June last year, ACE brought you news of Electronic Arts' CDI pilot system – the Demulator. Twelve months ago, the EA interactive team had already produced a fully interactive CDI demonstration. The demo is set in EA's HQ – terrorists have kidnapped the Interactive Team and it's up to the player to explore the offices, look for clues and rescue the hostages before they're turned into female androids.

The game is played rather like Activision's *Manhole*, except the images on screen are digitised from videos made in EA's offices. Point to things on screen, click, and you can examine or use them.

Entering EA's offices, you have a strange feeling that something's wrong, Suddenly a phone rings – choose to pick it up and you hear a voice explaining the kidnap threat...

Not the usual hive of activity – something must be seriously wrong. Using the cursor, point and click on items to explore....

Even worse discoveries lie in wait for you... one member of the team has been sadistically bound to his chair...

are the CDI and DVI standards.

Compact Disc Interactive is the result of a joint development between Philips and Sony. A CDI player will contain a CD audio player which will be able to handle existing audio CDs: but it will also contain the Multi Media Controller, or MMC. This is the hardware that allows audio, video and text data read from the CDI disc to be decoded, controls play and runs interactive programmes.

Digital Video Interactive is based on two chipsets, supplied as add-on boards for an IBM PC AT or compatible: the Pixel Processor and the Output Display Processor. Essentially by storing the differences between frames of video rather than complete data on each frame, DVI allows massive data compression. A single frame of video is compressed from 600K to 5K and the audio accompaniment is reduced to 500 bytes per frame before it is stored. Unlike CDI, DVI is not tied to CD as the storage medium but the massive data capacity of CD makes it a logical choice.

DVI decompresses the video and audio data in real time, and allows full-screen, full-motion video to be used. CDI, on the other hand, is likely to have a limited capacity for full-motion video: at present a window occupying half the screen size is about the limit.

CDI and DVI systems are currently with software developers throughout the world, although much of the development work currently going on is on directed at more serious, directly commercial applications like education, training and sales, not at sheer entertainment.

A NEW ELECTRONIC ARTFORM

Meanwhile, leading software houses are preparing for a new way of writing games. Electronic Arts for instance, is concentrating on providing tools for writing games, tools that can be used by musicians, artists and scriptwriters who have never even thought about programming computers, let alone tried. "CD games will require megabytes of code" Greg Riker from Electronic Arts explains, "and we need to develop tools that allow games to be written with a quick turnaround. For a consumer medium to succeed we need a wide group of skilled people without programming knowledge, who can use tools to create products."

Electronic Arts are hiring specialists to work on their games, building up a design team which contains people from specialist disciplines. Rob Hubbard, for instance, was tempted from the UK to work on a code package for EA which allows musicians to compose music on MIDI and bring a datafile to the programmers. "Musicians don't need to know anything about programming, so we can use people who have experience in scoring movies – we can now work directly with composing musicians who can convey the underlying emotions in their soundtracks", Greg explains.

"We're starting to work with scriptwriters, people whose trade is writing stories, teaching them what it means to write an interactive script and we've always worked with graphic artists who do bitmap renderings and animations. Now we have a rotoscoping tools that allows us to film real motion video, capture it in a machine and let the artist manipulate the images easily."

The emphasis is on creativity, and with creative teams being run by directors and producers there could be obvious parallels to the film world. Are EA looking to make computer movies and could there be a crossover between the worlds of computer game programming and movie making? Not as Greg Riker sees it – the two media are different: "an interactive product has to be designed to last much longer than a film – we want to create hits – let's create something without creating a movie."

REAL CINEMA SOFTWARE

Cinemaware was set up in the first place as a rehearsal for new interactive technologies. President Bob Jacob explains: "We're using home computers as a training ground, developing and refining the methodology for interactive games." Whichever technology wins out, Cinemaware will be ready and waiting. As David Riordan, head of the Cinemaware Interactive Group puts it: "the way we have done our designs, particularly in the last year, they can all be expanded into CDI without being reworked.

"Currently we are doing work on authoring tools, seeing what use we can make of full-motion video windows on the screen. For

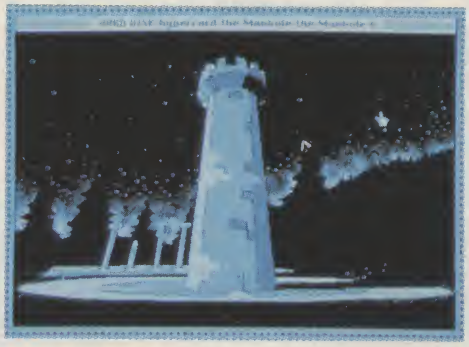
A PILOT'S DVI SYSTEM?

Apart from full-screen fill-motion video, one of the main advantages of DVI is its capability to map textures onto solid 3D objects. This facility is particularly useful when simulating real-world terrain – or indeed cityscapes. Note how the pilot's view of the city changes as the plane is flown across the terrain...

Zooming along, you catch sight of a small red blob on the ground...

...banking in to investigate, the blob grows larger...

...Ah yes. It's that dog from the His Master's Voice adverts!



instance, in *TV Sports Football* we could replace the digital picture of the coach with an actual person, and we could use camera views looking down the sides of the game," he continues.

The full implementation of CDI allows three planes of video to work independently on the screen, and the Cinemaware team is already working out how best to use the new medium. "With *Defender*, for instance, we could forget about the digital picture of the castle and build a model just at they would for a movie. The photo of the castle would be placed in the middle plane, and as a photograph of a 3D object it would have 3 axis depth. We could then have a digital sky in the background with thunder and lightning effects perhaps, and clouds moving along. In the front frame we could shoot a real knight and use frames of a real person as a kind of video sprite.

"Video windows could be used to give closeups, and with the opportunities for audio soundtracks we reckon it will be possible to get real emotional response from a game in the same way as you can from a film. Without human expressions and body language, you can't create real emotional responses, but CDI could make it all possible." The team at Cinemaware is thoroughly excited by the prospects of the future: "we're all for the movie world and we're dying to have real dialogue. we're really itching to get going", David says.

INTERACTIVISION

Bruce Davies, President and Chief Executive Officer of Mediagenic – Activision UK's American parent company – was emphatic about his company's commitment to the CD future: "When it happens, we'll be there" he said. On the DVI front, Activision is one of the few software houses to have worked on a pilot programme – *Flight Simulator*, produced in conjunction with Imagineering. William Valk, Director of Technology at Mediagenic is eagerly awaiting the arrival of CDI: "We hope it comes out soon... the delays are really frustrating."

William is more enthusiastic than most about the potential for DVI. The most interesting aspect of the system, he asserts, is the facility for mapping textures onto solid objects. "It's the most interesting thing about DVI. It brings realism." As far as he's concerned, the big news is that chipmaker Intel has bought the DVI technology from General Electric: "Intel are in the best position to drive down the price of the chipsets to a level that allows the consumer to afford them", he says.

Apart from their development work with DVI, Mediagenic have also produced a CD ROM entertainment product for the Macintosh. Initially launched late last year on a set of five standard floppy disks, *Manhole* has been available as a Mac CD ROM product since January this year according to William Valk. *Manhole* uses the innovative Macintosh authoring system, Hypercard, in an innovative way (see panel). "*Manhole* uses a portion of Hypercard but we can't do all we want to with it – *Manhole CD ROM* taught us a lot, and we're now looking into building systems of our own to move things around." Bill explains. "Very few people have the purse to get a CD ROM title out," he asserts, explaining that Mediagenic are investing in the future, developing authoring tools and game design methodology ready for the arrival of the technology: "we're preparing to support mass-market CD ROM once the platform is there. We're looking at the PC Engine which is due for launch in the States very soon, and we're very interested in that and in the new Nintendo and Sega consoles. We intend to be flexible and go on to a variety of platforms –

PHOBIA

Commodore 64 screen shots

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In the inteactive world of the *Manhole*. Climb up the beanstalk to see a tower; touch on the tower, and draw closer... touch again and arrive at the door; click on the door and it opens... click again, and pass through... click on the stairway and ascend towards another adventure.

serious computers can have CD ROM drives, and CD ROM drives are not just for games. The PC Engine with CD ROM offers a quality that is not that much lower than the CDI standard, and with luck there will be a bridge between computers with CD drives and CDI equipment – people should be able to load the same disk on several different systems."

THROUGH THE MANHOLE

Described as 'a fantasy exploration for children of all ages', *Manhole* takes the user into a charmingly convoluted world that borrows from the scenarios of classic children's literature such as Alice in Wonderland. The player is the active, first person explorer who wanders around interacting with the environment.

Point, click, watch and listen: the only four things you need to do when exploring the world of *Manhole*. At the very start of the game, you can see a fire hydrant and a manhole cover. Click on the cover and it moves aside as a giant beanstalk grows into the skies. Three routes are now available to the player: into the hydrant, up the beanstalk or down into the underwater world inside the manhole.

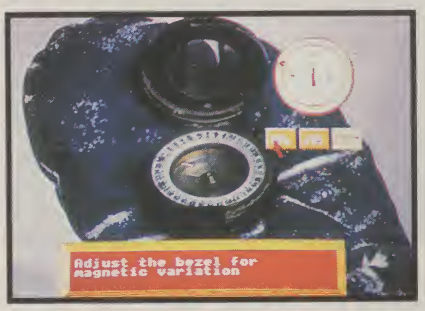
Gameplay is both simple and child-like. You just wander around, touching things, finding out what happens. Sometimes one of the whimsical characters will speak to you. Touch doors or desk drawers and they open, revealing hidden items. Objects in the gameworld can be manipulated by simple touches: musical keyboards can be played, books can be read, TV sets and radios can be turned on, and all the while appropriate digitised sound effects make the experiences real. Overall, the effect is both pleasing and believable to the adult mind – in the hands of younger children *Manhole* will certainly captivate.

As a demonstration of the potential of interactive CD-based products, *Manhole* is an interesting pilot. While sampled sounds, monochromatic cartoon graphics with simplistic animations and fantasy scenarios are not exactly unheard of in the world of entertainment software, the way in which they are linked together in *Manhole* opens new vistas, much wider than those opened by laser vision games such as *Dragon's Lair*.

In *Manhole*, all the player has to do is move a cursor over an image and click on an item of interest. The interactivity is total, the experience of exploring a new and strange environment convincing. Just imagine what the *Manhole* experience would be like with full-motion video shot from live action...

INTERACTING WITH VIRGIN

Of all the software houses exploring the possibilities of interactive CD, Virgin Mastertronic is perhaps best placed to produce multi-media programmes. Parent company Virgin is already involved in books, music, film and video as well as entertainment software – all creative disciplines that will feed CD-based interactive pro-



Stop-frame stills can be linked together to produce appropriate action sequences. Before setting a compass bearing, you need to make adjustments for the local magnetic field...

grammes of the future. No surprise, then, that Virgin has set up an Interactive Media unit...

About 18 months ago work started on an interactive programme based on Sir Ranulph Fiennes' 1982 expedition to the North Pole. Several hours of movie film together with 500 slides were made available to the Virgin team, who sat down to design an interactive simulation of the real expedition that would be "enjoyable and entertaining as well as instructive."

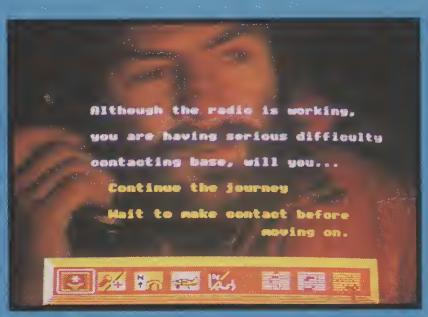
The aim was to simulate the total experience of planning an expedition and carrying it out – participants should be able to interact with one another as well as with the programme. And this was intended to be more than a 'theoretical' laboratory project. The programme was expected to sell, and even make money... "The main academic background to the project was to produce a programme that developed interpersonal skills, and we wanted to publish it, so it runs on the standard system in schools – the BBC Domesday system" William Beckett, the man in charge, explains.

Naturally, the main aim of the North Pole project was to develop the methodology for writing interactive programmes that involved video footage and still pictures: "we went into it with closely-defined criteria" Mr Beckett says, "but we looked to develop skills in-house for products on CD – we felt it was worth getting into early to learn about the techniques involved. The only way to learn is to actually produce something.

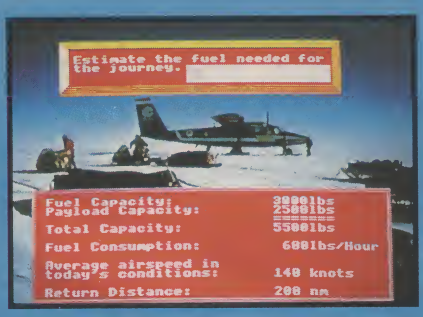
"It is unclear which medium will come out when in the next year or so – people are grappling with relatively arcane products, and although video and computers are not the easiest of things to marry together in a friendly system, it looks as if CD will be the delivery medium for this type of product. Our programme was designed to be transferred to CD-based systems, but as the laser vision system is here and now, we used it."

The Domesday System, which uses a laser vision player linked to a BBC computer, has been installed in around 2,000 schools. The hardware costs around £4,000 to buy. If you already have access to the system, the Virgin North Polar Expedition software is available for £199 including manuals, a teacher's guide and a copy of Sir Ranulph Fiennes book, To The Ends Of The Earth.

Treking across the Tundra...



Just one of the problems encountered on the trek to the North Pole. Multiple choice questions are answered by clicking on the icon options.



Calculations based on real-life data from the expedition are part of the simulation. Unlike most games, however, you can't lose a life by making a mistake.

DVI OR CDI?

William Beckett and the Virgin interactive media people have looked at both CDI and DVI and are keeping a weather eye open on all the new interactive technologies. "We don't mind which technology wins" William explains, "providing the right design decisions have been taken, you can move the product to any media. For instance, we've already learnt that it's better to take images from film than from videotape.

"The difficulty with DVI is that it requires a powerful engine to decompress and I'm not sure you actually need to do that in interactive programmes. Interaction is non-linear, so there isn't the need for the full motion video capabilities offered by the DVI system. It may be more effective to use the background and middle-ground offered by CDI, if only because of the variety you can introduce into the programme.

"DVI definitely has a place – there are some great applications you can envisage for it, but the PC is not necessarily the place you'd start if you were going from here – you need two boards and a PC to run DVI programmes, and it's going to be difficult to get the hardware price below £2,000 and £3,000. From the programme-maker's point of view, working with DVI means everything has to be pre-defined and compressed down first. CDI, with its window of full motion animation on the screen, may be more flexible. The latest version of CDI may allow full-screen full-motion video, but even if it doesn't I don't think it's much of a drawback – designers just need to think what they're doing with it..."

FORWARD WITH VIRGIN

The Virgin Group as a whole has a large range of entertainment interests – including a CD pressing plant in its Oxford Street Megastore, which could just as easily produce CD ROM disks as music pressings. Virgin Interactive is working on the pilots for a couple more educational products at the moment. "We're looking at specific CD-only products, which are probably a year ahead or so. We hope to be able to deliver games on CD ROM eventually."

While home entertainment products on CD ROM might be a way into the future, CD-based arcade machines from Virgin's Arcadia subsidiary are a definite possibility, although no firm details are available at present. Today's technology, however, would allow the CD coin-op designer to produce a much more sophisticated game than the comparatively simplistic *Dragon's Lair*. ●

Next Month ★ The full story of CDI...

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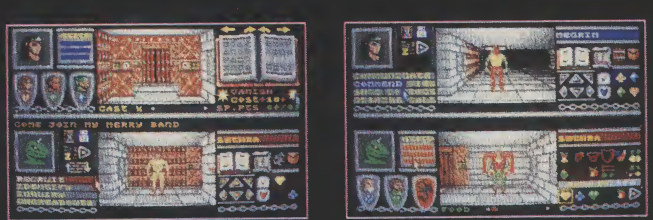

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IN CONJUNCTION WITH ACE, VIRGIN MASTERTRONIC ARE GIVING AWAY THE TOP-OF-THE RANGE CONSOLE PACK, ALONG WITH A STACK OF CONSOLE-ING PRIZES FOR RUNNERS UP.

COMPETITION

WIN A SEGA SUPER SYSTEM

Top prize in the great Virgin Mastertronic give-away is the Sega Super System pack, which contains the basic console unit, two controllers, the light phaser and a set of 3D glasses. As if that package, containing several games for the light gun and 3D glasses, weren't enough Virgin Mastertronic are throwing in a couple of extra Sega games of your choice and a Sega T shirt.

Should you miss the top prize, next in line is a trendy Virgin sports bag and tracksuit: the hippest equipment for getting fit or having fun in, and ideal clobber for attempting Atlantic crossings in hot air balloons. Then five runners-up packs are on offer, each containing a game from the Melbourne House label, a game from the Leisure Genius label, and two games from the massive Mastertronic budget collection. You get to choose the titles you want...

The challenge we're setting is simple enough – all you have to do is answer five straightforward questions, then complete the coupon with your name and address. Runners-up get to choose the games of their choice, and as a gentle reminder of what's on offer, here's a resumé of the Melbourne House and Leisure Genius ranges that we prepared earlier...

LEISURE GENIUS

Scrabble C64, Spectrum, Amstrad
Scrabble Deluxe C64, Spectrum, Amstrad, ST, PC, Amiga
Monopoly C64, Spectrum, Amstrad
Cluedo C64, Spectrum, Amstrad
Scruples C64, Spectrum, Amstrad, ST, PC
Risk C64 (Spectrum, ST, PC, Amiga soon)

MELBOURNE HOUSE

Double Dragon C64, Spectrum, ST, PC, Amiga
Aaargh Amiga
Roadwars ST, Amiga
War In Middle Earth C64, Spectrum, Amstrad, ST, PC, Amiga
Metropolis PC
Rockford ST, PC
Barbarians C64, Spectrum, Amstrad
Terrorpods C64, Spectrum
Xenon C64, Spectrum, ST, Amiga

Down to the questions. The Virgin group was founded by Richard Branson in 1970, and in the last 19 years it has expanded into a variety of activities, building on its early record-retailing foundations. Today you can play computer games published by the group, fly across the Atlantic to America with the Virgin airline, buy a Sega console distributed by Virgin and, of course, pop into a Virgin Megastore to buy books, records, CDs: just about anything you need to have fun, in fact.

1 Virgin's record label was launched in 1973, and Mike Oldfield was its first signing. What was the title of Mike Oldfield's first album for Virgin?

2 We've mentioned crossing the Atlantic in a balloon, but Richard Branson made another attempt at a record Atlantic crossing. What sort of vehicle was used, and what was the name of the award he was trying for?

3 Melbourne House has published three games based on Tolkein's tales of Middle Earth. Name two of them.

4 Name three Mastertronic games.

5 What is the name of the British company that publishes the board game originals of Cluedo and Monopoly, which have been converted to the home computer by Leisure Genius?

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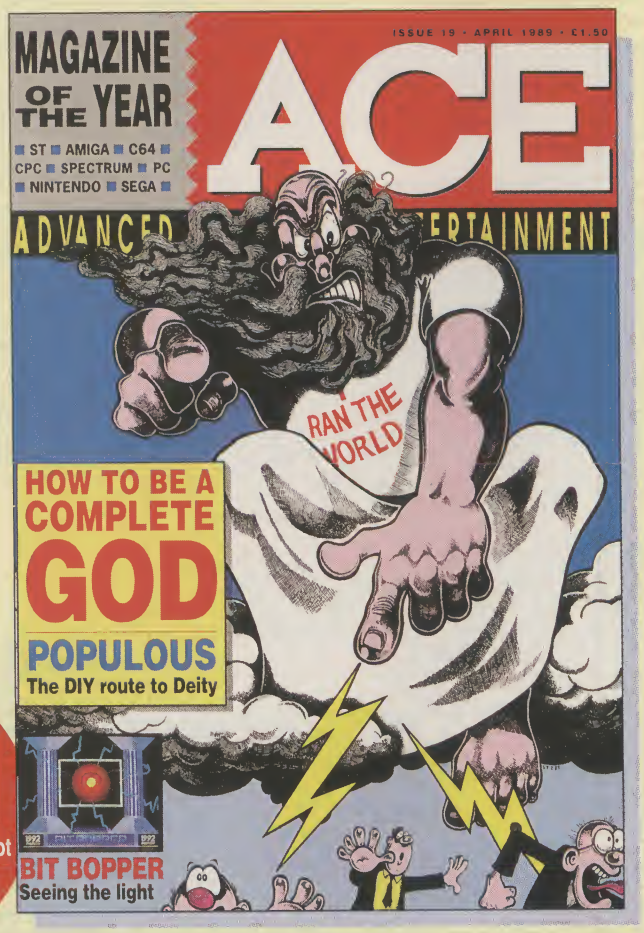

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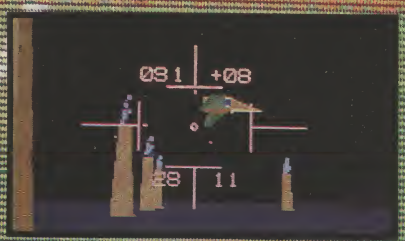
SCREEN TEST

Bio Challenge **is currently the second biggest seller in France. Are the French completely mad? Can you really get 160 colours on screen and still have an incredibly good game? Do robots get dizzy? Look out for another amazing new release on Page 46.**



Voyager **is a contender for the title of the best 3D shoot-em-up we've ever seen. Check out exactly why on Page 36.**

Grand Monster Slam **features one of the most original and amusing concepts in game ideas we've seen in a while. Will kicking small furry creatures around annoy the animal rights lobby? The only way to find out is by turning to Page 42!**

THE ACE REVIEWING SYSTEM

PIC CURVES
This unique feature to the ACE reviewing system charts the interest level that a game stimulates over a period of time. It may be totally addictive at first, but will you have completed it and got bored within the first week? The curve is accompanied by a comment to explain why it's the shape it is.

GRAPHICS
This rating considers all aspects of the game's graphics, such as scrolling, animation, detail, use of colour and sprites. It is 'version-specific', so the limitations of each machine are taken into account – a good-looking Spectrum game will score higher than an average-looking Amiga one.

AUDIO
The music and sound effects are rated here. Once again it is version-specific and a high rating is possible on even limited machines like the Spectrum and PC. Additional audio tapes do NOT count – they are part of the packaging and presentation and are not taken into account in the rating.

IQ FACTOR
Just how much thought is required to get the most from the game? Shoot-em-ups are lucky to score three, while *Balance of Power* is a nine all the way. Puzzle games like *Xor* and *Boulderdash* will also score highly, but simple exploration games will not because they involve no deductive processes. Even platform games like *Nebulus* involve plenty of brain bending and therefore score well.

FUN FACTOR
Basically this is a measure of mindless addictiveness. Games like *Arkanoid* and *Flying Shark* require virtually zero brain power but are still remarkably addictive. Most coin-ops score well here because they are designed for instant satisfaction. Games don't have to be *either* fun *or* intelligent – they can be both.

ACE RATING
This is not just plucked out of the air – it directly correlates to the area under the Predicted Interest Curve. To get a really high rating a game will not only have to be very addictive and interesting but stand the test of time as well, and still be enjoyable in a year's time. Just because a game does not get over 900 does not mean we are not recommending it – the following is a general guide to what the ratings mean.

900+ A classic game, recommended without reservation.

800-899 A superb game, but perhaps lacking the long-term depth to last into the month and year categories.

700-799 Still highly recommended, but probably has a couple of aspects to the gameplay that take the edge off it.

600-699 The 'fair' zone, where it tends to be very good 'if you like that sort of thing'.

500-599 This still has good things going for it, but the game clearly has some noticeable problems.

400-499 Problems with gameplay and programming make this an inferior game.

300-399 Not only is the gameplay bad but the design was probably flawed in the first place.

200-299 This is getting really serious now, we are talking bugs and really dire gameplay.

100-199 ZX81 games running on an Amiga.

Under 100 Nothing has ever achieved this appalling level of rating. If anything ever does, it wouldn't even be worth having it for free.

ARCADE ACCURACY
This is a measure of the competence of a conversion of a coin-op. It does not reflect on the gameplay at all, but on how close the programmers have got to the original arcade game, given the limitations of the computer it's on.

VERSION BOXES
This covers version-specific information on graphics, audio, loading problems etc. If there isn't a box for your machine but a version is planned, it will be covered as an update in a later issue.

THE TEAM
Bob Wade, Reviews Editor, has a track record in games reviewing stretching back to *Personal Computer Games* and *Zzap! 64*, has edited *Amstrad Action*, and is now one of the most experienced and authoritative writers in the field.

Andy Smith has worked for ACE since it first started, is one of life's natural gamesplayers, and has never lost his enthusiasm for a good game, whether at the controls of a flight simulator, ordering the imminent destruction of an opposing army or wiping out alien invasions.

Steve Jarratt blew out a promising career as an Industrial chemist through his infatuation with the games scene, working his way to the lofty pinnacle of the reviewing world via *Zzap! 64*, *Crash* and *Commodore User* before finally arriving at ACE. His reviews are among the most consistently balanced and informative around.

Graeme Kidd has steered more magazines to success than I've had hot dinners, has more experience in professional gamesplaying than you can imagine, and still knows exactly how to bring you the best in advanced computer entertainment.

All the ACE reviewers look at every game, and everyone has a say in the final ratings, so you can be sure that all reviews give a balanced and considered opinion. The ACE team lays claim to one of the most impressive track records in games reviewing and can confidently tackle any type of game. We don't review anything until we are 100% certain that we've got it right. We've checked them out thoroughly – now you can too. ●

FEATURED IN Radio ACE

VOYAGER

OCEAN voyage to the moons of Saturn

EARTH, 1977. Major world news: the Queen of England celebrates her Silver Jubilee, the Sex Pistols join in the celebrations with a trip up the Thames on a boat blasting out their latest chart topper 'God Save The Queen' and the satellite Voyager II is launched.

Somewhere in space, 2032. The Sex Pistols are long since forgotten, Queen Elizabeth II has died, and an alien life form scoops up Voyager II and takes the satellite back to its home world to decipher the information it holds.

Earth, 2139. Present day. Aliens appear in the Solar System, wiping out all space-borne craft of Terrestrial origin within the System in what's undoubtedly a sign of aggression. Several peace envoys, sent to negotiate with the aliens, fail to return: the world forgets about the rain forests and the Neutron threat to concentrate on imminent invasion and almost certain destruction from the hostile aliens, the Roxiz as they've come to be known.

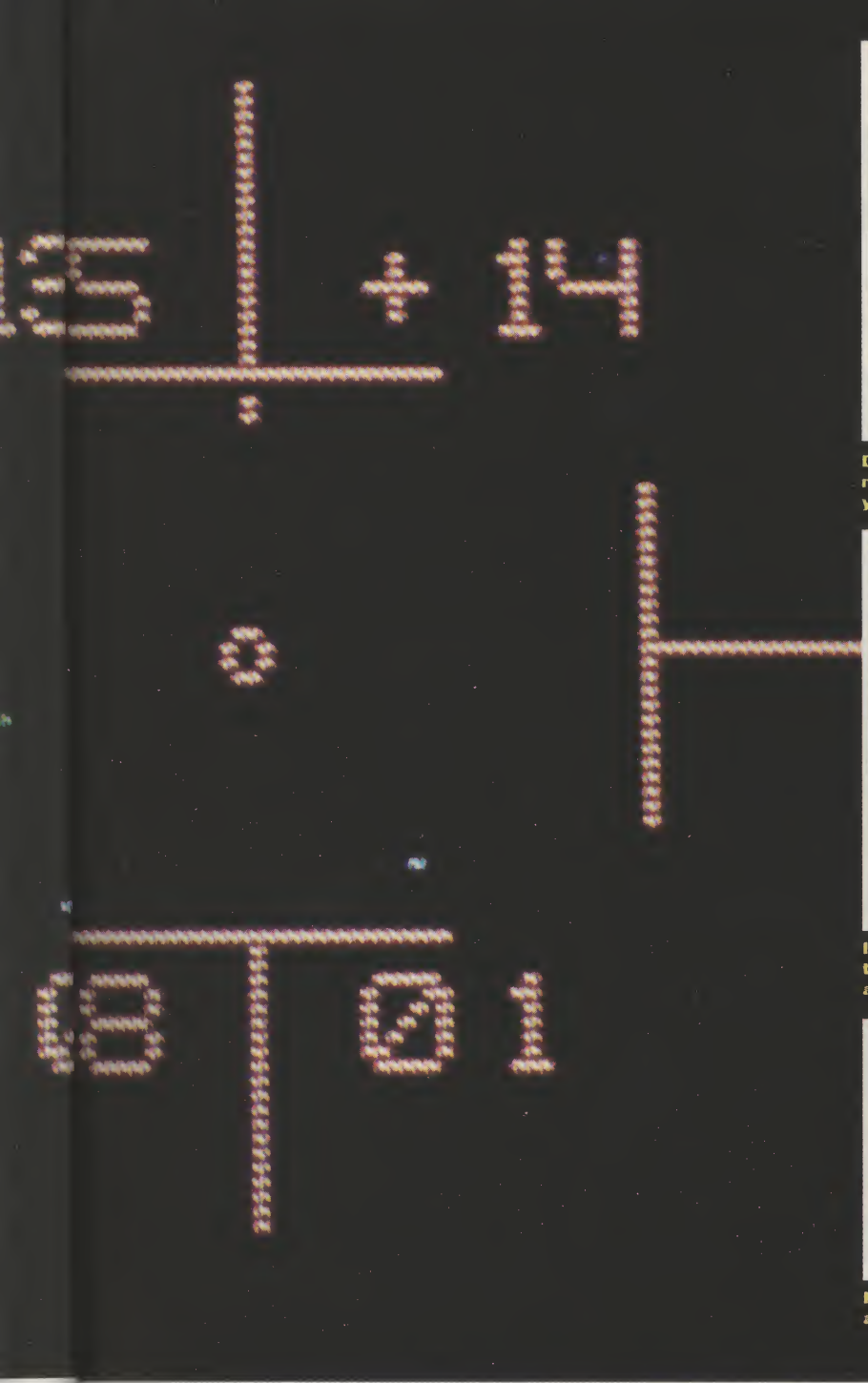
Oblivious to all this is one Luke Snayles, a criminal returning to Sol after a 50-year stretch of Investigative Exploration. Now, Luke is not slow, and he soon learns of the alien presence and their intentions. On closer inspection, he discovers that the Roxiz are using the 10 moons of Saturn as bases for

ST VERSION

The smooth, fast, colourful graphics help to make a very believable game world. You'll be hooked on this after just a few plays, and it'll take you a while to beat, but it's just lacking that extra something to keep you playing for months.

GRAPHICS	9	IQ FACTOR	4
AUDIO	7	FUN FACTOR	8

ACE RATING 862



Drop a camera and you can view, and shoot at, any enemies from outside your craft. And if you're wondering what your craft looks like – here 'tis.

If you're in a tight spot, launch a radar missile to confuse the enemy craft, then either make a run for it or blast the aliens as they come flocking to the missile.

Pick up the pod that enables your craft to sprout wings and suddenly taking on flying aliens becomes a lot easier.

their forces. So there's only one option open to him. He'll have to defeat the Roxiz army single handed.

You take the part of Luke and, starting at Janus, endeavour to wipe out the alien craft from each moon before slipping through a warp gate to the next. To do battle you've had to leave your mothership and send it on to Phoebe (the tenth moon) to wait while you scurry around in a shuttle. This shuttle is none too big and not well equipped: in fact, it's only armed with a front-firing laser, a couple of atomic bombs and some power pyramids (small energy bombs). You can pick up pods from the surface of each moon which were dropped by the mothership when it passed over, and enhance your firepower. One pod even allows you to transform your tank-like shuttle into a flying craft and back again at the touch of a button. This proves to be very handy, especially when you need to destroy airborne alien craft.

Each moon is more heavily defended than the last, not merely in the number of enemy craft, but in their intelligence. Moon Two, for example, is infested with horrid craft called Squashers that can only be destroyed by atomic bombs, and as there are always more Squashers than you've got bombs, life can be tricky. (A clue: try trapping the Squashers behind buildings, and polish off all the other craft before getting three or four to follow you, then let 'em have an atomic bomb and see how they like it!)

Voyager is a bit like a 3D *Starglider*, but better. Not only are the graphics better, but the gameplay is far superior. You can't simply rush around blasting everything, because it won't work – for a start, you have a limited amount of fuel – tactics are needed if you hope to survive and progress. Because a certain amount of thought is involved, you'll find it much more entertaining than the average *Battlezone* clone and will consequently be playing it for long periods of time. The repetetive nature of the game just takes the edge off, though, so it just misses out on attaining the coveted 900+ rating, but it's still one of the best 3D shoot-em-ups we've ever seen.

● Andy Smith

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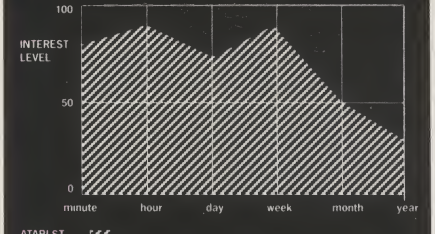
IBM PC	Version planned, details TBA	

PREDICTED INTEREST CURVE



ATARI ST

The graphics grab you immediately, but it takes a while to learn how to deal with the aliens. Although you may complete it after a month, you'll still be loading in a year's time.

RAIDER

IMPRESSIONS are the sincerest form of flattery

On arriving at the second system, the player has to enter the planetoid via the opening on the left, and destroy the gun emplacements while avoiding all the enemy's flak!

AMIGA owners have been denied conversions of the *Gravitar/Lander* clones *Thrust* and *Oids*, but this debut product from Impressions goes some way to redressing the balance.

As with all the predecessors, the player's ship obeys whichever of the laws of gravity are in evidence and is controlled from the keyboard using the now-standard rotate and thrust commands with the landscape scrolling around the central vessel.

The game is set in deep space (aren't they all?) where the player's mission is to visit four planets in each of eight star systems and retrieve a stolen fuel pod from each. Having captured all four pods, the craft must then be directed to an automated powerplant where the pods are repositioned in their correct locations. Success is rewarded with access to the next system, and a password allowing the previous star system to be skipped on later goes.

Having blasted all the enemy guns on the first level, the ship deploys its tractor beam to pick up the required fuel pod.

Pods are only released once all the planetary defences have been neutralised using the ship's cannon. A tractor beam device – which also doubles as a shield – is then used to collect the pod and any spare fuel cannisters that are lying around on the planet's surface.

Although *Raider* obviously borrows heavily from *Oids* and *Thrust*, it doesn't quite manage to impress as much as its inspirations due to the unimaginative theme. Also, the control method isn't as precise as other games in this mould, since the ship's inertia is a touch overstrong. However, the difference is only really noticeable to anyone brought up on the previous *Gravitar/Lander* clones: anyone new to the genre will swiftly adapt to the gamestyle, and veterans can practise an old art on new canvas.

● Steve Jarratt

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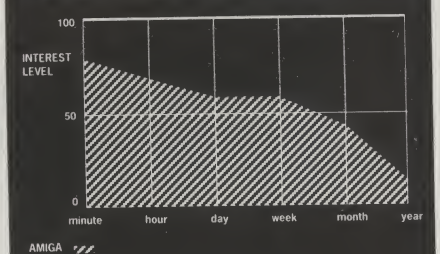
AMIGA VERSION

While the multidirectional scrolling is all very smooth, the graphics do have a slightly amateur quality about them. Sound is limited to sampled in-game effects for thrusting, firing and explosions: all of which are adequate, but no more.

GRAPHICS	5	IQ FACTOR	4
AUDIO	4	FUN FACTOR	7

ACE RATING 674

PREDICTED INTEREST CURVE



The tried and tested gameplay proves entertaining from the outset, and the level-entry password system helps sustain interest right into the year.

SILKWORM

Rebel, ST version reviewed, £19.95dk

Shoot em-ups come and shoot-em-ups go, so what could possibly make this one stand out from the crowd?

Having just about everything you could wish for in a game of this type helps. Want a simultaneous two player option? It's got it. Want mid- and end-of-level guardians to destroy? It's got 'em. Want to be able to pick up extra firepower so blasting the flying and ground-based targets becomes a little easier? No problem.

Beginning to get the idea? Good. Now for the scenario: You're piloting a helicopter (a friend drives a jeep if two play) across a continuous horizontally-scrolling landscape, blasting all and sundry that comes your way: including the gratuitous amount of flak that the enemy throws at you. You've got three lives to lose before you get the first of three 'continue' options, so you've got nine lives in effect (still not enough, guys!)

All in all, *Silkworm* is a very good shoot-em-up: nothing more and nothing less. The attacking craft are varied, and there's plenty to blast, so it'll keep you busy for a good while and is guaranteed to take years off the life expectancy of your joystick fire button.

● Andy Smith

A surprisingly quiet moment, having just disposed of a missile base and evaded a tank.

GRAPHICS	8	IQ FACTOR	2
AUDIO	7	FUN FACTOR	9

ACE RATING 735

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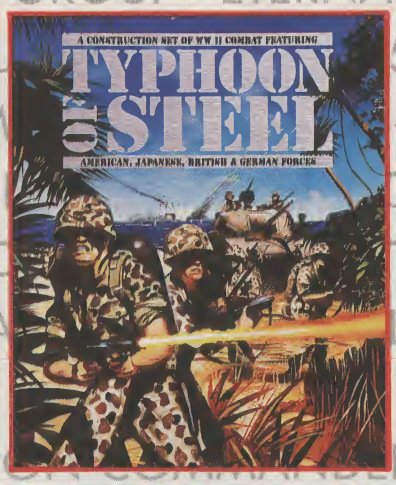

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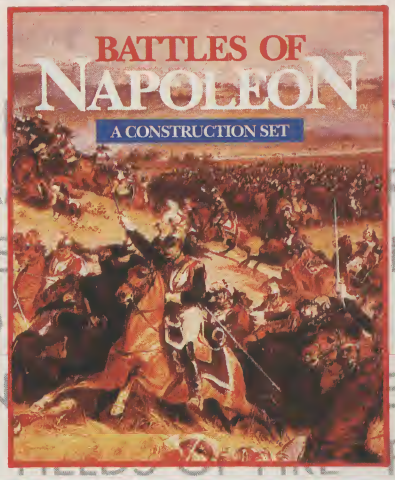

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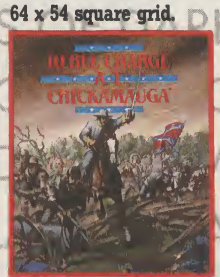

The game can be played at 1 of 3 levels of difficulty and is a must for players of the 'Gettysburg' system.

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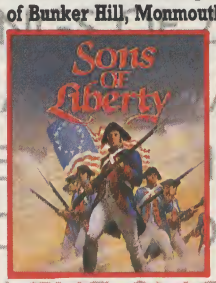

Based on the popular 'Gettysburg' System the game has introductory, intermediate and advanced levels.

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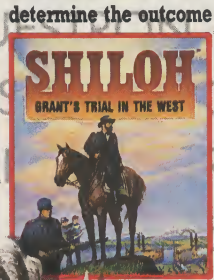

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Typhoon presents a wriggling bag of Sea Sprites to the irate Sprite in the armoury.

(Main Picture) On the second level (hence the darker sea) TT waits in the centre of the island village, ready to blast the two flyers who are about to close in for the kill.

TYPHOON THOMPSON

BRODERBUND/DOMARK raise a storm

FLIGHT 396 plummets down to the surface of Aguar, an ocean world in the Omega system, and all hands are lost at sea... except one. A tiny infant survives the crash, and is adopted by the Sea Sprites that inhabit the placid waters of Aguar. After several abortive attempts are made to rescue the child, the task falls upon the narrow shoulders of reluctant hero Typhoon Thompson.

Forcefully persuaded to board his personal jet-sled, Thompson heads for the nearest group of islands where he is met by the Spirit Guardians, remnants of a long-dead civilization, who help him on his quest. At the beginning of each level they ask for a particular artifact – dagger, hammer, balloon or protector – which is held in the Sprites' armoury at the centre of a 'village' of six islands. To retrieve the item, Thompson must capture all the Sprites from the surrounding islands and trade them for the required valuable from the irate Sprite in the central armoury.

Sprites appear from their archipelagic dwellings either once the island is shot, or automatically after a short time. However, the little amphibians are enclosed in small hovercraft called Flyers, which home in on Thompspon's jet-sled and attempt to remove this minor annoyance by a variety of means, including both missiles and more direct methods.

One hit from the sled's blaster sees the Flyer destroyed, and the Sprite is sent whizzing through the air, to land with a splash some distance away. While the creature is stunned, Typhoon must reach the Sprite and scoop it up in a sack; otherwise, the Sprite regains his wits and swims, dolphin-like, back to his island.

Having captured all the Sprites and swapped them for the required object, Thompson may re-visit the Guardians in order to receive his orders for the next level, and also take receipt of an extra weapon.

The above scenario might sound a bit eccentric, but the gameplay is in fact very straightforward and very absorbing. The jet-sled's unusual mouse control soon becomes second nature, and the only drawback is that the limited gameplay might soon pall due to overfamiliarity or completion of the game (although the latter is quite a task). Still, *Typhoon Thompson* simply drips quality, and is a suitable fanfare for the reappearance of Broderbund products.

● Steve Jarratt

After an unsuccessful attempt, The Spirit Guardians levitate Typhoon, prior to installing a new jet-sled underneath him.

RELEASE BOX		
ATARI ST	£19.99dk	IMMINENT
No other versions planned		

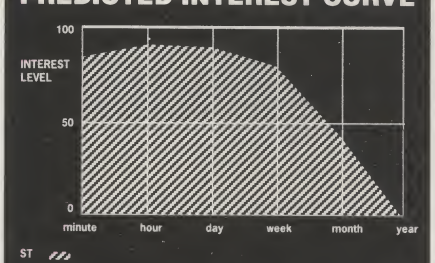
ST VERSION

The shots above do little justice to *TT*'s graphics: they must be seen to be believed. The animation is nothing short of superb – even on such tiny characters – and the water effect is enhanced with lovely splashes and ripples. Similarly, the 3D is quite stunning: movement is dead smooth and the illusion of depth is almost perfect. Sound is minimal, but used to a premium, with decent spot effects realistically fading with distance.

GRAPHICS	9	IQ FACTOR	3
AUDIO	6	FUN FACTOR	9

ACE RATING 822

PREDICTED INTEREST CURVE



Simply amazing for the first few goes, and the challenge holds its appeal for a week or two before repetition starts to kill interest.

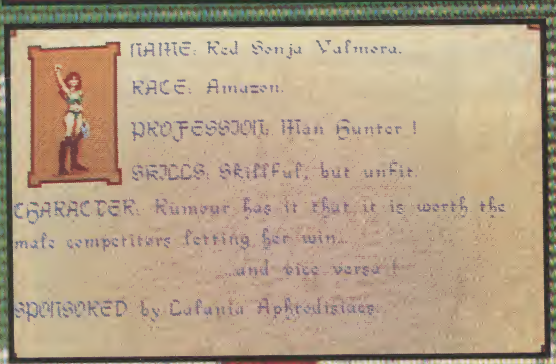
FEATURED IN Radio ACE

900 ACE RATED

GRAND MONSTER SLAM

GOLDEN GOBLINS make the fur fly

The main game: the barbarian has nearly cleared his Beloms. Just one more, then the home run.



The top shot shows all the eight contestants from the first league: you are at top left. Below is the detailed run-down on your opponent: Germanic sexism strikes again.

WHAT sort of monster is it that would gleefully go around launching cute little furry animals into the air with its boot? The sort of monster that wants to win! There's only one way to win in this game, and that's by accurately and forcefully introducing cute, lovable 'Beloms' to the unyielding toes of your Size Tens.

The *GMS* takes place in the land of Ghold where goblins, dwarves, ogres, humans and many other monster races live alongside each other in perfect hatred. To avoid the complete collapse of social order, the monsters confine their potential battles to the field of play.

You're a dwarf, but don't let it get you down, because dwarves are good at this game. In the first two sections of the game you are placed with seven other competitors in a knockout competition. The players in the first section are not too good, but none of them are easy to beat.

Each match pits two creatures against each other on a pitch viewed from one end, and your dwarf is always at the near end. In front of each player is a baseline with six Beloms lined up on it. The players walk along the line and boot the poor, quivering Beloms over at the opponent, with the aim of completely clearing the line of Beloms and charging up to the other end of the field.

If you can hit an opposing player with a Belom it floors him for a while, providing you with the best chance to whack a few more in his direction. Beloms automatically line up on the baseline to be kicked, which is very self-sacrificing considering the hammering they take. A shot can be angled in either direction and hoisted in the air, although the danger of this is that it might fly into the crowd, resulting in a penalty.

Of course, in a game like this, the penalties are anything but normal. They involve kicking a Pelvan (a big duck) into the opposing monster's endzone, and while success throws three Beloms over to the receiver's side, a save causes one Belom to cross to the kicker's side. The computer players can give away penalties too, but that depends on how skilful they are.

It may all sound simple, but the gameplay is utterly manic, with the dwarf scurrying along the baseline in a desperate attempt to kick Beloms and avoid incoming ones. Most of the skill lies in aiming shots to keep the other player pinned down, which is not at all easy when it has to be done at speed. This is even harder in the second knockout section, because a wooden fence with a gap in it is placed in the middle of the field. Shots now have to be hoisted over the fence or guided through the gap.

After every game, the Beloms get their revenge for all the hoofing about by surrounding the player and launching a 'precisely-aimed tickle-attack'. They can be pushed off for a while, but defeat is inevitable. The longer you can survive, the more points are amassed.

After quarters, semis and then the final have all been played, there is a qualifying game where Beloms have to be booted into the mouths of 'Faultons' perched on pillars. These pillars are at different heights, and a certain number of successful shots are needed to qualify you for the next knockout series.

In the third section three champions await, who all have to be defeated in order to achieve final victory. Unfortunately for you, they also possess magical abilities to surprise you.

Despite being simplistic and repetitive it's a very addictive game with the same sort of attraction as *Speedball*. You will keep coming back to it regularly, because no two games are the same and it's always a challenge. It's cruel, nasty and despicable to treat Beloms like this: but we love it.

● Bob Wade

The two sub-games, Revenge of the Beloms and Faulton Feeding. (Top) One Belom repulsed at top right but another is coming from the left. (Bottom) One Faulton has been fed and the second Belom is flying into an open maw.

RELEASE BOX

ATARI ST	Price TBA	IMMINENT
AMIGA	Price TBA	OUT NOW
C64/128	Price TBA	IMMINENT
IBM PC	Price TBA	IMMINENT

No other versions planned

AMIGA VERSION

The graphics and animation are exceptionally good, the poor little Beloms being the highlight as they quiver, whizz through the air and splat into the screen. The music and effects are slick and enjoyable: the roar of the crowd, the grunts of anguished competitors.

GRAPHICS	8	**IQ FACTOR**	3
AUDIO	7	**FUN FACTOR**	7

ACE RATING 900

PREDICTED INTEREST CURVE

Belom bunging really hooks you, and needs great concentration and persistence. With no two games alike, and a variety of opponents, it's one to come back to for months.

King's Quest Series

Available at all major computer games stockists or by mail order

Mail Order: Postronix Ltd, Nene Enterprise Centre, Freehold Street, Northampton, NN2 6EW.
Tel: 0604 791771
Consumer Enquiries/Technical Support: 0734 310003

SIERRA

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ACTIVISION

HILLSFAR

More AD&D from SSI – OK?

THIRD of the SSI/TSR range of computer games based on the AD&D system to arrive is *Hillsfar*, bringing with it a number of questions. Will it be an arcade adventure, like *Heroes of the Lance*: or will it be more in keeping with the role-playing system, like *Pool of Radiance*?

Hillsfar takes its name from the town in which the game is based, and actually turns out to be a mix of game styles, rather than falling neatly into one category. Before setting out on your adventures you can import a character already created in *Pool of Radiance* or create yourself a new persona (Thief, Fighter, Magician and so on) in true RPG style.

Then the adventure starts, placing you at a campsite a few miles from the town. To travel to Hillsfar, you go via the first of the four arcade-style sub-games: horse riding. Using the joystick, you have to gallop along a path jumping over obstacles such as puddles and fallen branches and ducking kamikaze birds that flap along at head height.

The other arcade style games include fighting in the arena, where you try to bash your opponent into unconsciousness: target shooting, where you fire a total of ten darts, arrows, stones or daggers at a series of targets for a gold prize: and maze wandering/lock picking. These last two are linked because on entering almost any building you'll find yourself looking down on your character as he wanders around. Soon you'll come across some treasure chests and if you've got a set of picks, or a friend with a set of picks, you can attempt to spring the locks by matching the picks to the lock tumblers – the number of tumblers varies from three to six – within a time limit. Failure not only not loses the loot, but will probably also spring some sort of trap that will have an adverse affect on your hit points.

On to the adventuring side of things. The screen display breaks down into three main sections: A large map, viewed from above, shows your position in the town at all times. In the top left is a window showing a view 'through your eyes' and at the bottom of the screen is a window displaying text messages.

What you do in *Hillsfar* is largely up to you. If you're into the adventuring side of things, you can try interacting with some characters and discover some quests. For example, if you're a thief character, head for the Guild of Thieves, chat to the main man and he'll send you on a mission. If you prefer the action side of things, wander to the arena and pick a fight. Actually, whichever type you prefer, you'll almost certainly end up taking part in both. Wandering around the city, for instance, you might come across a pub and pop in to have a couple of beers. If your luck's bad, you could easily end up being carted off to the arena for a fight, or you could just as easily pick up a juicy bit of gossip that sends you off adventuring.

And that's about it. All quests involve one arcade sequence and most involve more than one, making *Hillsfar* much more of a middle ground game than true RPG. That's in some ways a great advantage, and could well attract arcadesters to this type of game, but don't expect it to be as involving, or the game world as believable, as a game like *Pool of Radiance*.

● Andy Smith

The main map shows the town of Hillsfar and your position. The inset display reveals that you are outside the Fighter's Guild: enter, and you will be given a mission.

C64 VERSION

The graphics are fine, with especially nice animation in the horse riding sequences. The sound effects are few and far between, and they're nothing special when they do appear. A nice mix of arcade and RPG.

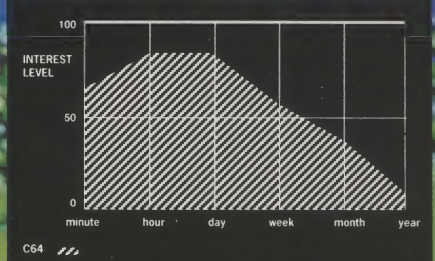
GRAPHICS	8	IQ FACTOR	5
AUDIO	2	FUN FACTOR	6

ACE RATING 732

RELEASE BOX

ATARI ST	Details TBA	Autumn
AMIGA	Details TBA	Autumn
C64/128	£19.99dk	OUT NOW
IBM PC	£24.99dk	IMMINENT

PREDICTED INTEREST CURVE



The arcade games are fun the first few times, and after a little exploration you'll become quite involved. However, after a week you'll have seen much of what's on offer and will be looking for new adventures.

To destroy the blue mechanical on the left, KLIPT must move next to the one-charge slab...

...and perform a vertical spinning jump. Clipping the slab, it falls to the left, destroying the creature.

BIO CHALLENGE

La première jeu de DELPHINE SOFTWARE avec PALACE

The first end-of-level guardian in his cavern. A well-timed shot hits the large robot smack in the chops!

RICHARD Clayderman makes Delphine Records lots of money: in fact, he's one of the biggest-selling recording artists in the world. 'So what's that got to do with *Bio Challenge*?' you might ask. Well, Delphine have dipped a corporate toe in the software world and come up with the second-biggest seller in France after *Captain Blood*. And now it's being released in this country under the guidance of Palace Software.

Coded by the co-authors of Elite's ST *Space Harrier*, *Bio Challenge* features a typically French (ie strange) scenario, and some unusual and innovative gameplay.

The player takes on the mantle of a KLIPT cyborg, bearing the body of a robot and controlled by a human brain. To test the effectiveness of the experiment, KLIPT is expected to conquer all six levels of the *Bio Challenge*.

Each level is split up into 'planets' accessed by contact with colour-coded transporters which hover at the top of the screen. The level is completed by collecting four pieces of amulet from around the planets, and then defeating a large end-of-level guardian.

Planet landscapes are littered with deep crevasses, movable platforms called 'charge slabs' and three varieties of bio-mechanical beings: small ones fly across the screen in formation, medium-sized creatures suspend themselves from the charge slabs, and larger mechanicals move and jump along the ground.

The airborne creatures drain KLIPT's energy – indicated by a falling oil level – but otherwise prove little more than an annoyance. KLIPT simply deals with these pests by going into a high-speed spin (possibly jumping at the same time) which destroys them. Oil is replenished by collecting barrels along the way, but if KLIPT's reservoir is completely drained, he loses a life and restarts the level from scratch.

The other two alien species cause similar drain, and can be destroyed in several ways. KLIPT can collect red armour from one of the cauldrons which regularly appear at the top of the screen. Thus kitted, whenever the android goes into a spin any flying creatures which hit him are sent whizzing off across the screen, and act as missiles to destroy both the charge slab hangers and ground-based beasties.

Other cauldrons also become visible as aliens are destroyed and include such goodies as additional time, bonus points, an extra life, increased oil tank capacity and green armour, which allows KLIPT to destroy any enemies that are on the screen simply by performing a backwards somersault.

Charge slabs carry one, two or three charges, and can be made to fall on unsuspecting beings by reducing the charge to zero. KLIPT does this by performing his backflip while standing on the slab, or by clipping them on the edge on an upwards jump. The latter manoeuvre causes them to either fall sideways, if they only carry one charge, or to move sideways, reducing the charge by one unit. In this way, slabs holding two or three charges can be positioned as required.

When suitably smashed on the head, shot or 'smart-bombed', the defunct creatures yield either sections of amulet, or units of ammunition which are then used against the guardian. Once the amulet is complete, KLIPT can head back to the large sphere at the start of the level where he is transported to his meeting in the guardian's cavern.

During this sub-level, whenever KLIPT attempts a jump, he is transformed into a floating cannon which slowly falls back to the ground. The guardian constantly rises and falls, shooting as it does so, and KLIPT's bullets must be timed to hit the guardian on the most vulnerable area, his head. Successfully defeating the large mechanical allows KLIPT to continue his mission on the next level.

This strategic shoot-em-up – but without the shooting – sounds a lot more complicated than it actually is. Once the mode of play becomes familiar the action proves extremely addictive, and the game is nicely balanced to provide a continual challenge.

Bio Challenge is beautifully presented and features a great tutorial demo, which is well worth watching! In fact, the only real omission is an level-entry system allowing the early stages to be bypassed on later plays. Once learned, though, the levels are rapidly completed, and there is no strict method for completing each level. A great debut for the Delphine/Palace team: let's hope this is the start of a beautiful relationship!

● Steve Jarratt

ST VERSION

Not content with dead smooth four-layer parallax scrolling, the programmers have also used some clever techniques to produce a playing screen with more than its normal allotment of colours (up to 160, apparently). As with other French games, the ST's soundchip is also pushed hard, with a smart sampled soundtrack and some very pleasant effects during play.

GRAPHICS	9	IQ FACTOR	5
AUDIO	8	FUN FACTOR	8

ACE RATING 919

AMIGA VERSION

Visually identical to the ST, save for a subtler palette and even more colours. Although the spot effects are comparable, the Amiga boasts a predictably superior version of the title track which can be played throughout the game.

GRAPHICS	9	IQ FACTOR	5
AUDIO	8	FUN FACTOR	8

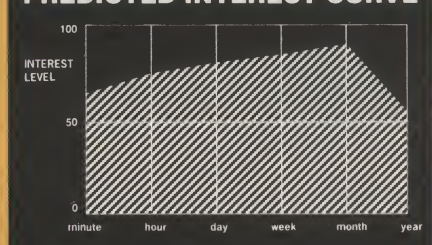
ACE RATING 919

RELEASE BOX

ATARI ST	£19.99dk	OUT NOW
AMIGA	£24.99dk	IMMINENT

No other versions planned

PREDICTED INTEREST CURVE



ST & AMIGA

The unusual gameplay provides instant allure, while familiarity with the controls and nicely-graded levels guarantee an enthralling and long-lasting challenge .

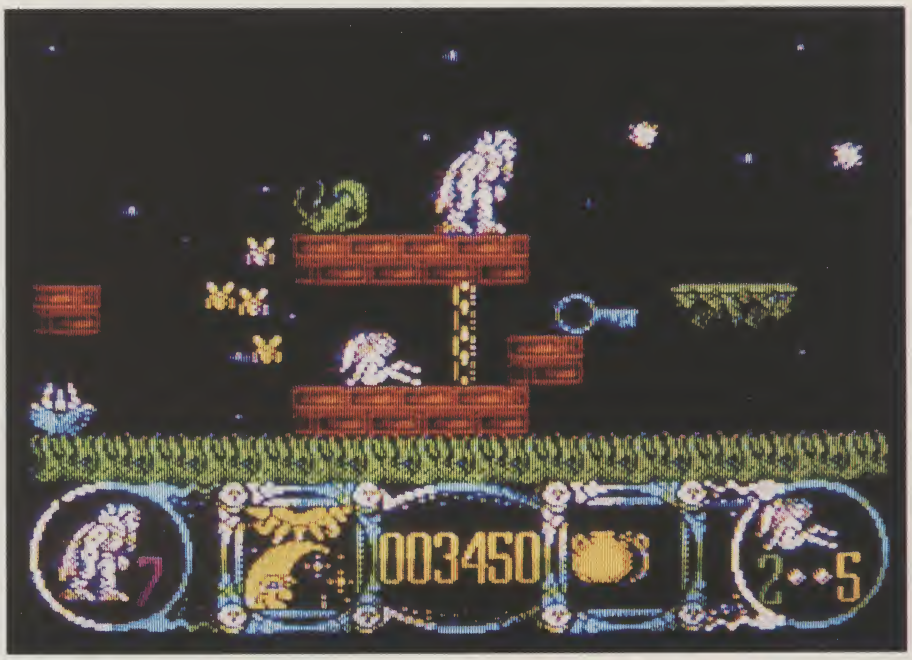
1 Positioned below the freshly-revealed Red Cauldron, KLIPT braces himself for a high jump.

2 Nearing the top of his leap, about to head-butt the cauldron.

3 The broken cauldron reveals a red blob which...

4 ...falls to the ground, closely followed by the cyborg.

5 KLIPT stoops to pick up the blob, and then moves on, neatly attired in his new armour.

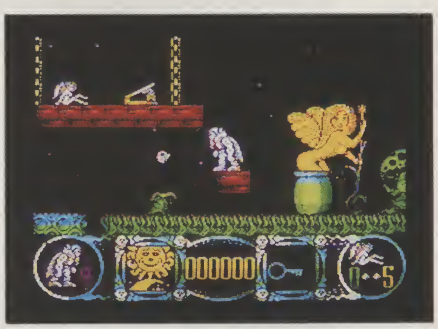


Your character, the eccentric-looking type with the large beard and cloak, is going to have problems sneaking past the green thing on the ground that throws white objects.

STORMLORD

It's raining HEWSON

RAF Cecco is one of the biggest names in 8-bit games, with an impressive track record of releases like *Cybernoid*, *Equinox* and *Exolon*. Nearly all these games have blended shoot-em-up action with arcade adventure to produce a unique style. *Stormlord*'s 2D side-on view is also typical of Cecco games, as are the detailed graphics that appear on all screens.



The bees, to the left, have been successfully avoided using the honeypot.

Your character walks and jumps around four levels, throwing fireballs and swords to dispose of enemies, solving a series of puzzles, and finally completing each level by rescuing five imprisoned fairies.

Objects which pop up throughout the game, although only one at a time can be carried, must be used to perform specific functions: keys to unlock doors, an umbrella to keep the rain off and honey to attract bees, which doesn't take too much working out. Among the more entertaining features are trampolines that act like teleports but do so by chucking you through the air.

As ever with Cecco games there's a host of timing problems where evil-doers have to be avoided rather than shot. All this avoiding and shooting is familiar but difficult, so even hardened players will have trouble completing the whole thing. It's enormously frustrating, and far too frequently demands near perfection from the player.

Despite the fact that it has been well programmed, looks great and is really quite action-packed, *Stormlord* is just too frustrating. If gameplay is to progress at all, it must get away from timing problems, unavoidable deaths and other things best left back in 1984. *Stormlord* is not really a bad game: it's just not as good as gamesplayers these days have every right to expect.

● Bob Wade

SPECTRUM VERSION

The backgrounds are detailed and attractive and are accompanied by some lovely animation on the sprites. There are some good in-game effects and a nice title tune too.

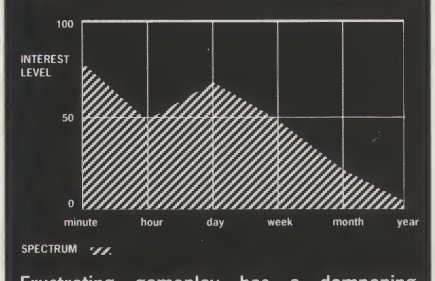
GRAPHICS	8	IQ FACTOR	4
AUDIO	8	FUN FACTOR	6

ACE RATING 574

RELEASE BOX

ATARI ST	£19.99dk	July '89
AMIGA	£19.99dk	July '89
SPEC 128	£9.99cs	OUT NOW
AMSTRAD	£9.99cs • £14.99dk	IMMINENT
C64/128	£9.99cs • £14.99dk	IMMINENT
IBM PC	No version planned	

PREDICTED INTEREST CURVE



Frustrating gameplay has a dampening effect early on and, although this can be overcome, the game only has four levels.

A surprisingly casual attacker lobs some garlic and waits, hands in pockets.

GRAPHICS	8	IQ FACTOR	1
AUDIO	8	FUN FACTOR	4

ACE RATING 277

FRIGHT NIGHT

Microdeal, Amiga version reviewed, £19.95dk

Gerry Dandridge is a member of the undead, and Gerry would like to remain undead. So Gerry has to leap, stalk and cavort around his house, after dark, and suck the blood of anyone he happens to come across.

These people aren't sold on this idea, so will attempt to harm Gerry by lobbing various articles at him: Garlic, holy water and so on. As the nights pass, the number of people stumbling into Gerry's house increases (including people he killed yesterday!) but so does the number of hazards that have a detrimental effect on his health, including ghosts of past victims and hands that thrust up from the floor, contact with any of which will cause your 'death force' meter (health to you and me) to take a tumble.

Fright Night has been a long time coming: the wait was not worth it. The game concept is dull, the play area is small, the animation is poor (Gerry looks and moves more like Elvis Presley than Elvis ever did) and the gameplay is frustrating. Not a game to add to your library.

● Andy Smith

THIS IS THE COURSE THAT JACK BUILT.

The 8th at Pebble Beach

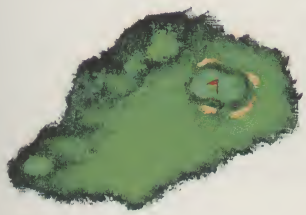
The 14th at St. Andrews

The 10th at Riviera

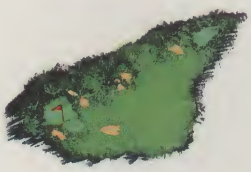
The 4th at Baltusrol

The 13th at Augusta

The 18th at Muirfield

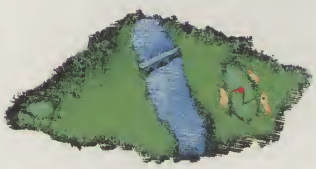

The 7th at Pebble Beach

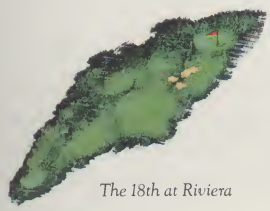
The 18th at Oakmont


The 12th at St. Andrews

The 10th at Augusta

The 11th at Merion

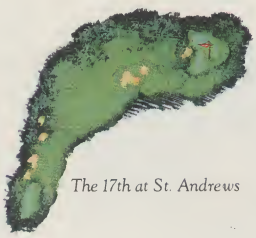

The 12th at Augusta


The 18th at Riviera

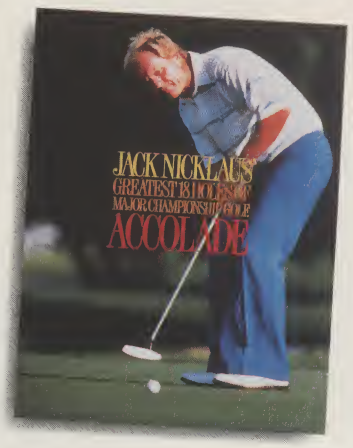
The 17th at Baltusrol

The 12th at Royal Lytham

The 7th at Augusta


The 17th at St. Andrews

The 18th at Pebble Beach



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THE SEGA SELECTION

CALIFORNIA GAMES ★ £24.95 crt

Epyx's much-acclaimed and well-laid-back sports simulation has been beautifully converted to the Sega. All six events of the original have been squeezed in intact, and one major advantage is not having to wait while each event loads.

For anyone not conversant with the American beach sports simulator, *California Games* includes half-pipe skateboarding, foot bag (or hackysack) juggling, surfing, roller skating, BMX bike racing and throwing the flying disk (Frisbee to you and me).

Gameplay revolves around strategic use of the joystick and fire button to perform set manoeuvres, and success is rewarded with points. Each event may be played or practised individually, or as part of a multi-event challenge. Unfortunately, the multi-player feature of the original has disappeared along the line.

Sega *California Games* is smarter than all the other computer versions with the possible exception of the Amiga. The gameplay is looking a bit dated, but since it's the first of its type on the Sega, it should receive an appreciative audience. And deservedly so.

● Steve Jarratt

Our California Dreamin' hero crests a wave, resplendent in his beach gear.

GRAPHICS	8	IQ FACTOR	3
AUDIO	6	FUN FACTOR	6

ACE RATING 710

VIGILANTE ★ £24.95 crt

The Vigilante aims a graceful kick to the face of an unpleasant character who is threatening him with a large tool.

Once more unto the streets dear friends and let's kick some ass while we're there. Of course, it's all in a good cause: rescuing some poor girl called Maria. That's right, the usual sexist drivel. Oh well, it's a good excuse for a punch up.

Your rather puny character has to progress along the horizontally-scrolling levels, fighting off the thugs, hoods, gang members and assorted street scum that attack from both sides. The cause is much aided by grabbing a weapon which dispatches them faster and at longer range.

The bad guys come in many varieties as well, taking many blows to defeat. Some of them also have the nasty habit of grabbing onto you if they get close enough, draining energy rapidly.

Once again it's uninspired gameplay, but as scrolling combat games go it's fun stuff that will not easily be beaten.

● Bob Wade

GRAPHICS	5	IQ FACTOR	1
AUDIO	3	FUN FACTOR	6

ACE RATING 661

TIME SOLDIER ★ £24.95 crt

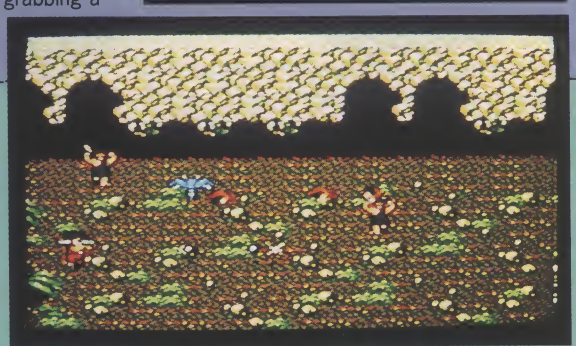
Cast in the role of a time soldier (surprise, surprise) the player – or players, for there is a simultaneous two player option – has to breach the barriers of time itself in order to rescue five troopers who are lost across the aeons, and ultimately defeat the evil being, Gylend, who sent them there in the first place.

Basically, the soldiers have to negotiate a series of vertically and horizontally-scrolling landscapes representing the different time zones, and battle any indigenous hostiles that appear.

On destroying specific enemies, additional weaponry becomes available and is simply picked up to add temporary impetus to the assault. No surprises at the end of the level either: a guardian being manifests itself according to the period, and must be wasted before attempting the next era.

The SNK coin-op wasn't brilliant and, unsurprisingly, this version doesn't improve upon the matter. The visuals are sparse, the action is a little slow, and unfortunately after a few goes it all becomes a bit ho-hum.

● Steve Jarratt



With his bazooka, the time-traveller blows away cavemen who've been unsportingly lobbing stone axes.

GRAPHICS	4	IQ FACTOR	2
AUDIO	4	FUN FACTOR	5

ACE RATING 505

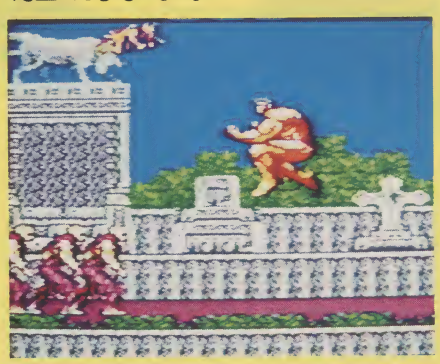
ALTERED BEAST ★ £24.95 crt

Catchy name for a game with some eyecatching graphics. The beast in question is a hero risen from the grave who can power up, first into a Charles Atlas body and then into a demonic, fire spitting wolfman.

Power-ups are gained by destroying certain foes, encountered on the gently scrolling levels. They come from both sides, above and even up from the ground, to be punched, kicked and zapped out of existence. End-of-level guardians are of course essential and take a hell of a lot of beating.

Not very imaginative in gameplay, but notable for its classy graphics. The wolfman, however, adds to the fun considerably, because as well as shooting fireballs he can launch himself across screen and lay waste to all who stand before him.

● Bob Wade



Against a background of fine neo-classical architecture, the muscular fighting man leaps to the attack, assuring the deaths of the Wearers of Purple Trousers.

GRAPHICS	7	IQ FACTOR	1
AUDIO	5	FUN FACTOR	6

ACE RATING 661

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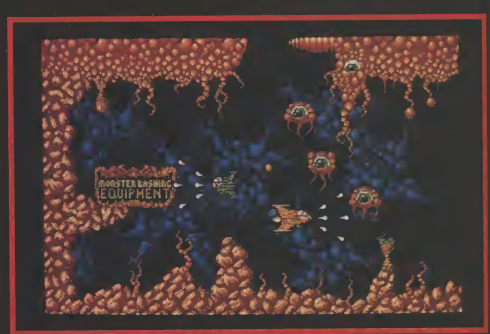
Blood Money



BLOOD MONEY

The ultimate arcade game

Hold it right there. Are you REALLY ready for this one? Have you got the courage to load up the experience that makes all the other games you've played seem prehistoric?

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But it's going to be tough. From the instant you hear that driving soundtrack you'll be plunged into a maelstrom of sheer destruction, as you plunder the four Outer Planets in a kamikaze quest for gold and glory. The aliens in **BLOOD MONEY** set some vicious traps, and it will take all your skills just to survive.

Use your awesome firepower wisely and you'll turn those aliens into blood money that can earn you extra weapons and equipment. And you're going to need them, because there are no easy screens in **BLOOD MONEY.** It's a life and death struggle that demands all your tactical genius and shoot-em-up know-how before you battle through to confront the four planetary Guardians.

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TIME SCANNER

ACTIVISION's time and motion study

STRANGE how some games come about. Take this one: a conversion of a coin-op that was derived from pinball tables. Weird certainly, but the coin-op was a big success and produced a far more complex game than any normal pintable ever could or ever has.

There are four whole tables to play, each with its own task to be completed. Each table is split into two halves, with flippers on both halves, so if the ball slips off the top section, which it's launched onto, the bottom half scrolls into view. If you lose it off the bottom screen it's one of five balls gone.

AMIGA VERSION

Excellent tunes, varying for each of the levels and accompanied by good effects. Graphics are close to the arcade version. Ball movement is not perfect, but it's close enough to offer plenty of fun for a good while.

GRAPHICS	8	IQ FACTOR	2
AUDIO	8	FUN FACTOR	8

ACE RATING 769

On the left is the first level, the volcano, on the right the second stage, the ruins. If you can hit the ball up one of the tubes that start above the volcano, it lights up one of the letters. Light all seven and multi-ball mayhem results.

The first level is the volcano, followed by the ruins and the pyramid. If these three can successfully be mastered, the fourth and most difficult table awaits. To get between levels the ball must be hit into a 'time tunnel' which will warp it there. The task on 'volcano' is to hit the ball up a chute to light up the letters in the word volcano. Once this is done, you get three balls at once: a great chance to amass a score.

A similar situation is found on the other two levels, where completing a task gets you a multi-ball play. You don't really want to know what to do, do you? I thought not. Have fun finding out.

Once all three levels are completed the final table can be reached via a time tunnel. Here again there's a task to be completed, but this time it mixes in the old classic *Breakout* and is by far the hardest of all the levels.

Like the arcade version there's a tilt option for rattling the screen around. This can save the ball from impending doom and the machine never objects to the bouncing about. Tilting is vital for victory, as is accuracy with the flippers.

Basically, *Time Scanner* is pinball with extras thrown in to good effect. It may not be original, and it may not take long to see everything, but pinball has always been very addictive and this game is no exception.

● Bob Wade

This is the top half of the pyramid stage, where a task has to be completed. However, we don't want to spell it out for you.

ARCADE ACCURACY

Both the graphics and the gameplay emulate the coin-op closely. An excellent job.

The original coin-op – close huh?

COIN-OP SCORE 9

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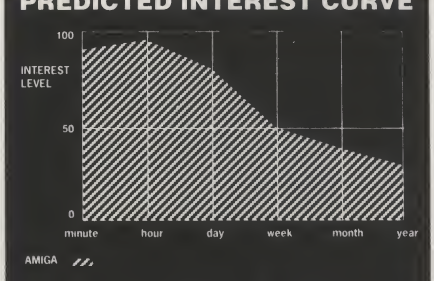
PREDICTED INTEREST CURVE



Even after the excitement of the first few days has worn off, you'll still keep coming back for more.

RUN THE GAUNTLET

Multi-eventing around with OCEAN

ST VERSION

The graphics are good, but the gameplay can be very frustrating. Once you know the courses it won't take you long to win every game.

GRAPHICS	8	IQ FACTOR	2
AUDIO	6	FUN FACTOR	7

ACE RATING 647

(Right) ST – A water race, and you're piloting a tricky hover. These craft tend to generate bags of inertia, so you'll have to beware of oversteer.

SUPERCATS, Quads and Meteors are all modes of transport, surprisingly enough, and they all feature in this game based on the popular TV series Run the Gauntlet.

On the telly, international teams compete against each other in several races on land and water, driving various kind of weird and wonderful vehicles. In the computer game you and a couple of mates can compete against each other in nine races (three groups of three legs) again, for the most part, in assorted vehicles.

The driving races consist of three laps of a set course that varies depending on the type of craft you're in. The action's viewed from above, though it's more 'above and a bit to the side' for the buggy driving races. Just like in most Codemasters games, the controls are simply left, right, accelerate and brake.

Competing, whether playing solo or with friends, involves racing round the course against two computer drones: times for each leg are totted up at the end of the race and points awarded to whoever finishes most quickly. Failure to achieve the standards required, in other words not finishing in the top two, means you won't progress to the next round, so you will have to take risks and really go for it sometimes.

As might be expected, there are other factors as well as the computer drones that can prove a hindrance. Explosions on both land and sea can send your craft spinning out of control for a few vital seconds, and colliding with the computer drones delays only your progress, and not theirs.

Run The Gauntlet is not one of Ocean's better games. It's well put together and is fun to play (although the collision detection is a bit iffy), but it's far too easy to beat to keep you playing for months.

● Andy Smith

Spectrum – Supercats are the slowest of all the land craft, although that's not necessarily a bad thing!

Amstrad – Piloting a hover. Use the small map in the top corner to guide yourself round the course.

SPECTRUM VERSION

Everything's very fast and the graphics are fine. It's tougher to win on the Speccy, so there's more lasting challenge, but you'll master it eventually. An enjoyable short-term game in the *Super Sprint* and *BMX Simulator* mould.

GRAPHICS	8	IQ FACTOR	2
AUDIO	3	FUN FACTOR	6

ACE RATING 677

AMSTRAD VERSION

The gameplay is closer to the Spectrum than the ST version, so you can expect to get a fair amount of play from it. The graphics are good, being both smooth and colourful. Probably the most enjoyable version overall.

GRAPHICS	8	IQ FACTOR	2
AUDIO	4	FUN FACTOR	8

ACE RATING 683

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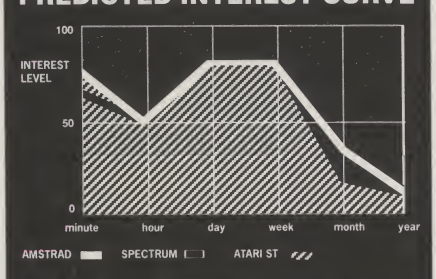
PREDICTED INTEREST CURVE



After the initial frustration caused by control problems is overcome, you'll find it extremely entertaining – until you beat it, which will be sooner rather than later.

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Stein

The white team try to stop the blue team from scoring another goal. That scanner/map of the whole pitch on the left can be shrunk in size if you wish.

Decide where you're going to strike the ball (consult the scanner to see where the rest of your team have positioned themselves) and hopefully you'll score.

KICK OFF

ANCO put their boots on

WHILE the world waits for *Microprose Soccer* to appear on the 16-bit machines, Anco have sneaked in with their eleven-a-side footy sim. Is it worth considering, or should you save your dosh?

Well, we can now tell you that it's definitely worth considering, because it's one of the best footy games to have appeared on the larger machines to date. As seems to be the vogue nowadays, the game is viewed from above with you controlling whichever player is in the best position to get the ball. It's a one or two player game, in which you can either play against a friend, or take on the computer single-handed.

The matches last from ten minutes (five mins per end) to a full-blown 90 minutes, and if you don't fancy practising first (penalties, corners or just joystick control) you can pick your formation and dive into the game.

Win the toss and you can decide whether to play upfield (play is vertically up and down the screen) or down for the first half: the teams switch for the second half. Though you can't see the whole pitch on the screen at once, there's a scanner in the top left, showing your position on the pitch.

But what about the gameplay. Your players automatically dribble the ball once they get hold of it, and turning with the ball can take a while to master (hold the joystick fire button down before touching the ball and you'll trap it, making it much easier to control) but once you do, you'll find the pace of the game makes it thoroughly enjoyable. Add to the great gameplay a host of skill levels, a league to play in and a save option and you're onto a winner.

● Andy Smith

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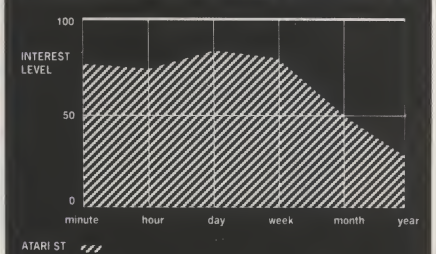
ST VERSION

The graphics and animation are good, the sound is nothing special, but the gameplay is. A great football game that will have you queuing up for a season ticket.

GRAPHICS	8	IQ FACTOR	3
AUDIO	5	FUN FACTOR	8

ACE RATING 821

PREDICTED INTEREST CURVE



The controls take a while to grasp, but as soon as you've got the hang of them you'll find the fun lasts.

DANGER FREAK

Rainbow Arts, C64 version reviewed, price TBA

The Germans have at last started to produce some original software instead of just coin-op clones. This particular example puts you in the role of a stuntman trying to film several sequences for the cameras.

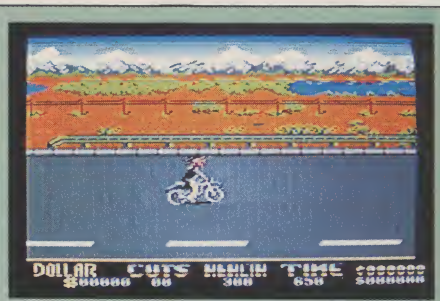
The first sequence is a horizontally-scrolling road filled with hazards like ramps, potholes, puddles, policemen and iron bars. These must be driven round, ducked under or wheelied over as fast as possible. Every mistake causes cuts in the film, affects your health and puts up the budget. Too many errors and everything has to be started again.

At the end of the sequence you have to jump onto the back of a car and from there onto a rope ladder dangling from a helicopter. None of this is very easy and takes a frustrating amount of time to master.

After an interlude screen based on *Super Sprint* it's back to stunt action on the water. Same sort of obstacle-dodging as in the first stage, but easier. The third section takes you into the air where all sorts of birds and planes attack and have to be avoided.

There's basically not enough of the game to hook you for long, but it is quite jolly.

● Bob Wade



Starting off on the highway to hell where maintaining speed and avoiding the obstacles are extremely difficult tasks.

GRAPHICS	7	IQ FACTOR	2
AUDIO	7	FUN FACTOR	6

ACE RATING 587

SKWEEK

LORICIELS make like a mouse

CUTE makes a comeback with this lovable, spiky little orange chap called Skweek. His massively important purpose in life is to turn blue squares pink. What more worthwhile reason for existence could there possibly be?

There are 99 levels that have to be pinkified, each one viewed from above and scrolling vertically when Sweek nears the edge of the screen. The floor is made up of tiles that all have to be turned pink by running over them. That's the game in a nutshell, but there are a host of features to complicate the action.

Dotted all over the levels are tiles that throw out nasty little monsters: most can be taken out with the forward firing fur ball Skweek starts with, but other weapons can be collected that are more effective.

As well as extra weapons there are other objects that appear randomly on each level like shields, extra lives, extra speed and exits to the next level. You're guided to these by a direction pointer, but they will disappear after a while. Some tiles are also marked with a boom symbol: green ones act as smart bombs and blue ones destroy surrounding tiles.

Getting through the early levels is easy but things get more complicated the further you go. There are short-cuts that act as teleports, disappearing blocks, materialising blocks and ice blocks that make Skweek slide. Using these basic building blocks the programmers have created some tricky levels which require pause for thought as well as racing for the time limit.

Not all the bonuses are good for Skweek. Reversed controls make it all too easy to run off the edge of a layout. Another problem is turning tiles blue instead of pink: it doesn't last long, but it still wastes precious time.

It's enormously jolly and guarantees lots of short term fun. 99 levels will keep most players busy, particularly with the 'random levels' option that plays them in random order.

● Bob Wade

ST VERSION

The graphics could be described as very colourful or even garish. There are several tunes that bounce along jollily, all adding to the cartoon feel.

GRAPHICS	7	IQ FACTOR	4
AUDIO	7	FUN FACTOR	8

ACE RATING 746

Skweek, the cute little orange creature with the punk hairstyle and inane grin, is threatened by a not-so-cute green monster. There's gonna be a fight...

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No other versions planned

PREDICTED INTEREST CURVE

The many features and levels keep interest high at first. However, even the random levels option doesn't stop the gameplay waning after a few weeks.

STEVE DAVIS WORLD SNOOKER

CDS, ST version reviewed, £19.99dk

Six game styles are supported (snooker 15 reds, snooker 10 reds, UK pool, US pool, English billiards and Carom billiards) all of which are played on the same table, except that US pool uses blue 'cloth'.

Play follows the standard pattern of selecting the direction of shot, signified by a movable line 'attached' to the white, and then setting strength and spin prior to releasing the cue. Also, any really doggo shots can be 'taken back', like a chess move, and the more memorable attempts may be replayed in slow motion. Each game can be played versus a human opponent, or the computer which is set to one of six experience levels, up to Steve Davis standard.

As with any game that purports to simulate the green baize sports, authenticity is hugely important, and *SDWS* fails on several counts. Maximum shot strength is ridiculously overpowered, and the targeting system just isn't accurate enough, given the resolution of the screen and the size of the balls. A zoom mode is incorporated, but proves useless for the longer shots.

The display is neat and tidy, but not outstanding. Spot effects are weak, although a sampled commentator punctuates the action and a smart version of the BBC's snooker theme introduces the game.

It's fun to play as a game in its own right, and does have lasting interest, as long as you appreciate its idiosyncrasies, but genuine snooker and pool enthusiasts won't be greatly impressed.

● Steve Jarratt

In practice mode, the direction line can be extended from the white to predict the movement of the object ball.

GRAPHICS	6	IQ FACTOR	5
AUDIO	4	FUN FACTOR	5

ACE RATING 540

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THE REAL GHOSTBUSTERS

Get slimed with ACTIVISION

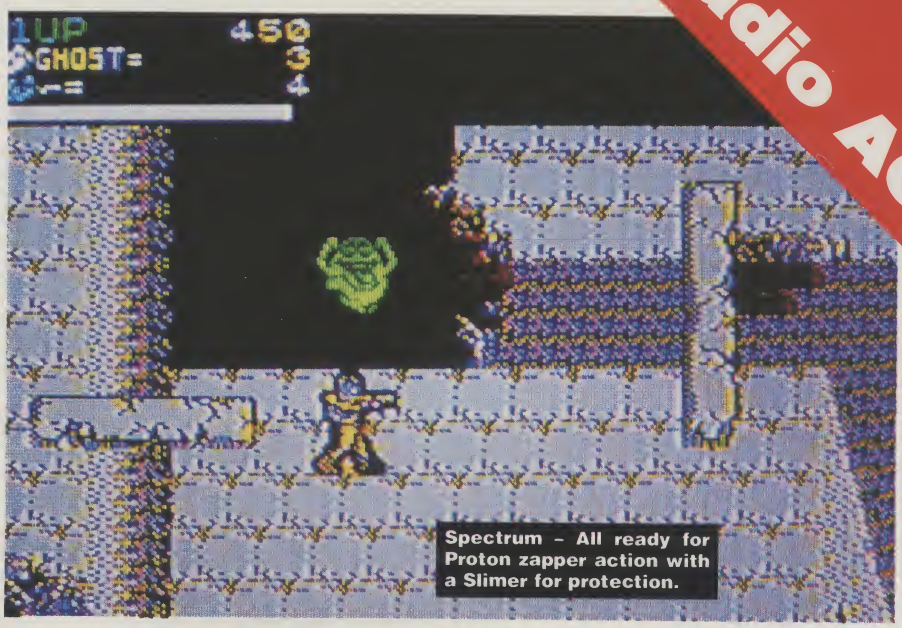
WHO were the other ones? Impostors? The wised-up (or under-tens) amongst us will need no explanation, but for the rest, the story goes something like this. Ghostbusters the film became an Activision computer game (full price, then budget). Then in America a TV cartoon and comic appeared, featuring the GBs team and called The Real Ghostbusters, which arcade giants Data East decided would make a jolly coin-op machine, (see ACE Issue Four). Now, Activision have decided it would make a jolly computer game too, so here we have it: the computer game of the coin-op of the comic-cartoon film spin-off.

You, and possibly a friend too (because it supports simultaneous two player action), have to fight your way through some ten levels of ghost-infested mayhem, collecting the nasty things with your Proton beam zapper. Before collecting the ghosts you have to shoot them first with your normal gun (a quick tap on the fire button) to turn them into nice, cuddly, fluffy white ghosts, before holding your finger on the fire button to trap them in the beam and draw them into your backpack.

There are benefits to be collected – from either ghosts or shooting parts of the scenery, such as oil drums – including a circling Slimer who acts a shield. If things weren't tough enough already, then remember you've got to complete each level within a time limit.

The collision detection is poor and the gameplay is bad: it's nothing more than an average shoot-em-up and is certainly not as much fun as the original *Ghostbusters* game.

● Andy Smith



Spectrum – All ready for Proton zapper action with a Slimer for protection.

SPECTRUM VERSION

The game is multi-load, which is offputting. The graphics are OK, though the animation leaves a bit to be desired. Not a game that stands out in any department.

GRAPHICS	6	IQ FACTOR	2
AUDIO	5	FUN FACTOR	6

ACE RATING 574

RELEASE BOX

ATARI ST	£19.99dk	OUT NOW
AMIGA	£24.99dk	IMMINENT
SPEC 128	£9.99cs	IMMINENT
AMSTRAD	£9.99cs • £14.99dk	IMMINENT
C64/128	£9.99cs • £14.99dk	IMMINENT

ST VERSION

The intro music and the effects are OK. The graphics are uninspired, and the perspective used is confusing: marry this to the poor animation and you're not left with the game of the year, and certainly not a game that'll keep you hooked for long.

GRAPHICS	7	IQ FACTOR	2
AUDIO	7	FUN FACTOR	7

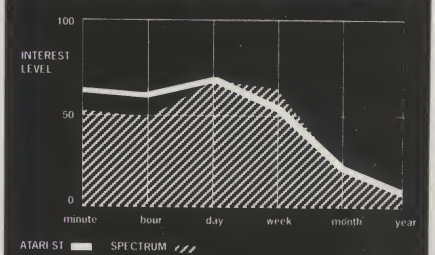
ACE RATING 586

ARCADE ACCURACY

Just about every feature of the coin-op has been included.

COIN OP SCORE 8

PREDICTED INTEREST CURVE



Frequent deaths cause initial frustration, but once the levels are learnt progress becomes altogether easier.

RENEGADE III

Imagine, Spectrum version reviewed, £8.99cs

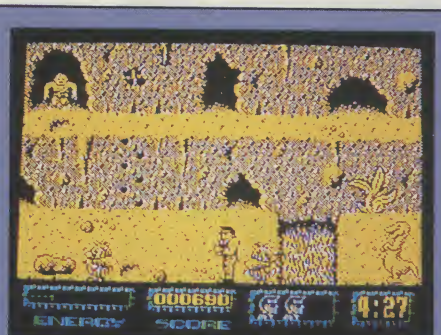
The urban gung-ho combat nut is really out of his depth this time. Forget cleaning up the mean streets of the city: he's battling through time zones against the nastiest things history can throw at him.

The battle starts in prehistoric times where dinosaurs and cavemen, looking like Rock and Gravel who drove the Bouldermobile in Wacky Races, try to beat his skull to a pulp. He must battle along the scrolling landscape, jumping gaps and climbing walls, to get to a couple of major confrontations. These are against multiple opponents who all attack at once.

Battle to the end of the level and a time machine will whisk him off to the next time zone. All the energy and lives are replaced and battle is rejoined against a new group of sprites. The second zone is ancient Egypt, full of mummies, the third zone is a mediaeval encounter with knights and the fourth a trip into the future.

The action is very similar to the previous game: enjoyable but undemanding. It has been a good series of games but hopefully this is the Final Chapter.

● Bob Wade



You're the cool dude in the shades being attacked by birds dropping eggs and West Ham supporters throwing rocks.

GRAPHICS	5	IQ FACTOR	1
AUDIO	8	FUN FACTOR	6

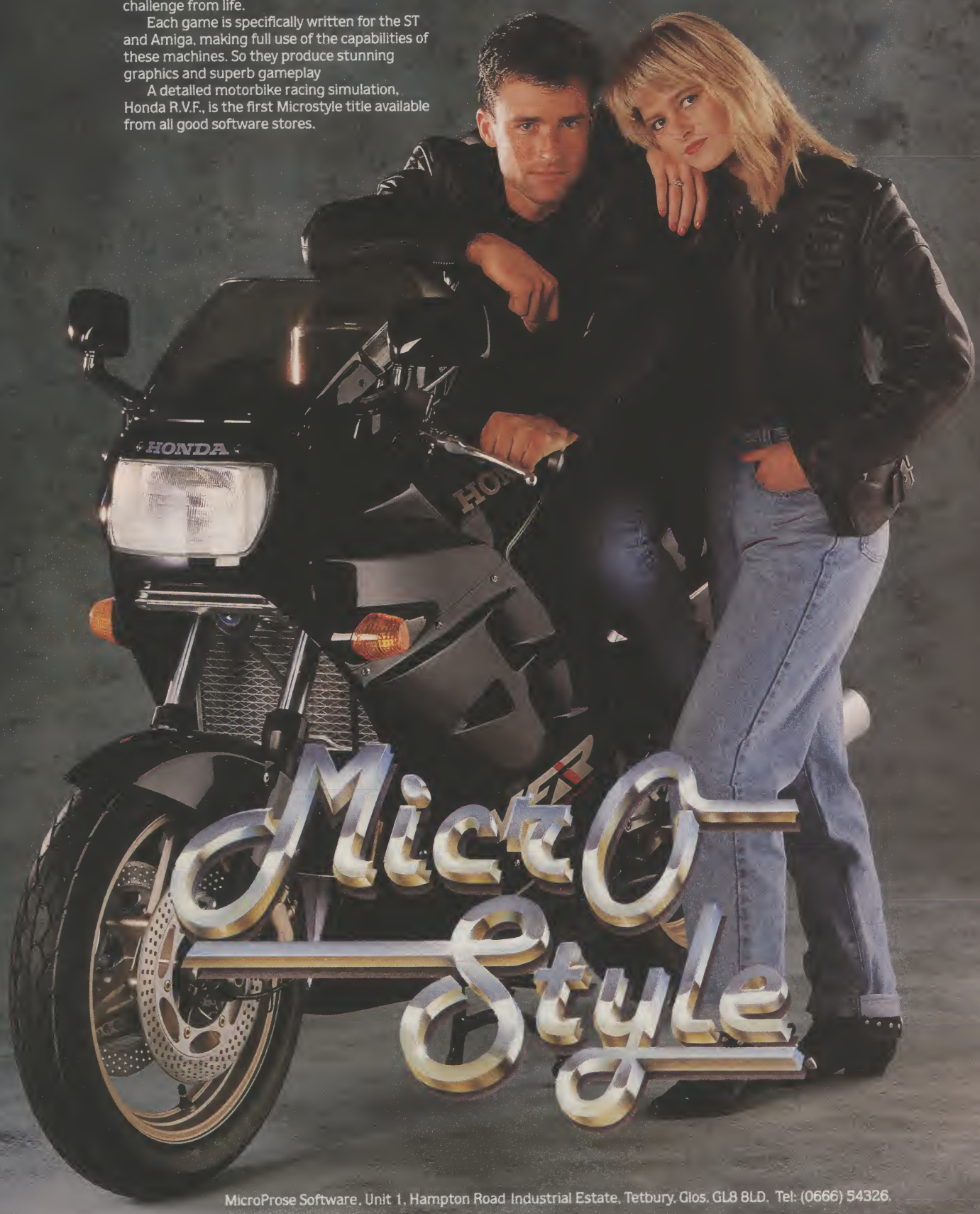
ACE RATING 574

GAMES FOR ADULTS

Microstyle is the new software label. The new option for those who demand fun, excitement and challenge from life.

Each game is specifically written for the ST and Amiga, making full use of the capabilities of these machines. So they produce stunning graphics and superb gameplay

A detailed motorbike racing simulation, Honda R.V.F., is the first Microstyle title available from all good software stores.



MicroProse Software, Unit 1, Hampton Road Industrial Estate, Tetbury, Glos. GL8 8LD. Tel: (0666) 54326.

SCREENTEST SUPPLEMENT

Welcome to this month's T'N'T, where the usual batch of hints and cheats is accompanied by the first instalment of a two-part 8-bit player's guide to *War In Middle Earth*, written by none other than the man himself, Mike Singleton. There's also some useful coaching for *TV Sports Football* players, clues for the spy game *The President Is Missing*, and a helping hand on *FOFT*. Plus a new C64 *Robocop* listing – you lucky people!

TNT

R-TYPE

Hands up all those Speccy owners having a hard time against the evil Bydo Empire? Thought so. Since infinite lives would make things a bit easier, here they are in listing form. It's a bit long, but it certainly is worth all the effort.

Simply type it in and RUN it to load *R-Type* with infinite lives and infinite credits.Good, huh?

NOTE: When the border flashes, stop the tape. Start the tape again when the border turns black.

```
10 FOR A=23296 TO 65535
20 READ F: IF F=999 THEN
RANDOMIZE USR23296
30 POKE A,F: NEXT A
100 DATA 243, 62, 255, 55, 221
110 DATA 33, 203, 92, 17, 195
120 DATA 11, 205, 86, 5, 48
130 DATA 241, 175, 50, 35, 93
140 DATA 205, 22, 93, 30, 119
150 DATA 33, 147, 243, 1, 85
160 DATA 11, 52, 11, 35, 120
170 DATA 177, 32, 249, 29, 123
180 DATA 211, 254, 32, 237, 62
190 DATA 202, 50, 123, 251,
205
200 DATA 109, 251, 33, 68, 91
210 DATA 175, 50, 42, 252, 34
220 DATA 22, 254, 49, 0, 0
230 DATA 195, 222, 254, 62,
201
240 DATA 50, 80, 254, 205, 64
250 DATA 254, 33, 90, 91, 17
260 DATA 22, 106, 1, 10, 0
270 DATA 237, 176, 195, 0, 106
280 DATA 175, 50, 254, 145, 50
290 DATA 149, 146, 195, 253,
133
300 DATA 999
```

■ Daniel Russel, Wroot

FOFT

For all those people who rushed out and bought Gremlin's *Elite* play-a-like on the ST without reading the reviews first, here are some desperately useful hints...

At the beginning, take the initial 150 credits and go straight into the Trading option. Watch the price of food in the Agricultural Products section, until it falls to 18 or below. Buy as much as possible, then keep watching until the price rises to 20-21 credits. Now sell the lot.

Continue to do this, using up all the available credits each time. Eventually, all the food can be bought and sold, inducing the market to fluctuate between 7 and 22 credits.

After playing the market for some time (patience, patience!) profits should be high enough to afford all the useful goodies: class three shields, tertiary weapons system, and a Star Drive Mk 5 (which speeds up travel in local space).

After hyperspacing to a system and reaching the planet by using the short range jump, space stations are located by accessing the long range radar and looking for the white stalk. It's then just a matter of flying within visible range, and initiating the automatic docking computer.

If under vicious attack from hostiles, contact the craft in question using their ident code. This tends to end their assault.

■ Drew Dubber, Lincoln, Steve Miller, Lancaster & R Cann, S Humberside

HEROES OF THE LANCE

Further to the tips printed in Issue 19, here are some additional tips for the SSI arcade adventure from someone who should know...

Only three of the seventeen spells are needed: Cure Light Wounds; Web (to paralyse dangerous-looking opponents for dissection at leisure), and Dragon Breath (for use against Khisanth).

None of the treasures, potions, scrolls etc that are found are actually needed.

Fight everything but Hatchlings; run at these and dodge into a door.

Raistlin jumps farthest.

Save your position before circular doors.

Goldmoon throws her staff at Khisanth (she can't throw it at any other times); then get a fighter to run past the dying dragon to win.

■ Pete Austin, Level 9 Computing

FUSION

Bullfrog's ST version of *Fusion* has a nice little cheat: load the game, get a high score and then type 'SWAMP THING' (including the space) on the high score table. On starting a new game, pressing 'T' cycles through the extra weapons, 'B' installs fat bullets, 'S' provides shields, and 'E' brings up the cheat mode, where levels may now be selected at will by pressing the '+' and '-' keys on the numeric keypad.

■ Thanks to Glenn Corpes, Bullfrog

MONEY!

T'N'T gives away up to £250 worth of vouchers each month. If you have any hints, cheats or maps for the LATEST games (Sega and Nintendo included), send them in. You could win a £20 voucher – or even the top prize of £150!

THE PRESIDENT IS MISSING

THIS TRICKY INVESTIGATIVE GAME HAS PROMPTED SOME USEFUL HINTS. HOPEFULLY, THESE WILL MAKE SENSE TO ANYONE PLAYING THE GAME...

TERESA BECKWORTH'S MURDER

Teresa worked for Colonel Sebastian Moran, whose activities are unaccounted for the four days June 5-9. Her boyfriend was Jerry Berger. On the back of her chequebook is written 'eih-cir kcor nevar r etis' which means: 'site r raven rock richie'.

Note the discrepancy between the President and the President's wife when referring to lake Kendalwood/Griffin. Also, the common link between many participants of the Special Forces Unit, Vietnam 1968-70.

Further info: Albern Gotzenhopfer and Kehle Schneider went to Cyprus on June 3 for one day before reporting to Otto Damonkleiner. Schatzmann and Mulroney have been transferring funds to Swiss Accounts. Todd Vogel, Stan Ritchie and Ian Schritt are all helicopter pilots who came through Austrian customs prior to the abduction.

All Agent/State department entries must be in capitals and have a space between the names, eg: MORAN, SEBASTIAN

CODED MESSAGES

The five Morse Code transmissions are deciphered to the following messages:

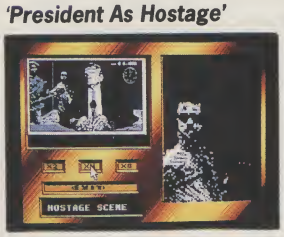
1 CHARON TO EM HAVE SET EMERALD IN NALUE
2 CQ CQ CQ GAZZZAE CQ CQ CQ
3 CHARON TO EM OPAL RECEIVED IRBID
4 GEOCEANUS TO DEVILFISH RENDEZVOUS 1812 N35 22E
5 CHARON TO EM GARNET DELIVERED TUDMUR LHODSU SUPT ALLAHO

(Or words to that effect.) EM may be Edwin Mulroney.

The sixth 'hidden' message is FOUCHE, tapped out by the French President against the microphone. Fouche can be seen on the photograph 'President As Hostage'.

PHOTOGRAPHIC EVIDENCE

'President As Hostage'



Fouche is one of the captors. The President's watch may intimate that he's in the Continental United States.

'FBI Photo'

The man in the picture is Krasni Medyved, he's standing outside Leo Vine's video store, 4109 Bellvue Street.

'Staging Area'

The helicopters were taken from the NATO exercise. The Al stands for Amalgamieren Industriell.

'Turkish Police Victim'

Last recorded owner of the gun was Saghir Ragoul.

WHAT MAY HAVE HAPPENED

The President arranges his own abduction, possibly in conjunction with the USSR to lay blame upon the Middle East terrorist organisations, particularly Ragoul or Touban.

Schatzmann and Mulroney provide the necessary funds, while the President's 'friends' from Vietnam are entrusted with the operation (General Giles, Leo Vine, Fouche, Schritt, Vogel, Ritchie, Moran, Hugh Malin etc).

General Giles made the helicopters available and Otto Damonkleiner provided the nerve gas.

After the abduction, the helicopters rendezvoused with UN-1 geoceanus submarine to take the president to...

Can anyone provide more information, particularly on the limited access codeword? asks...

■ Andrew Shorrock, Lancs

SEGA STUFF

GOLVELLIUS

This Sega game is getting on a bit but, since it hasn't been covered before, here are a few tips to give the quest an added boost.

When entering a code, put the number three as the third digit/letter. This is rewarded by a number of items, money and life potions. The exact result is dependent on the code, so try out different ones.

To find the second demon, slash the central blue stone (about five o'clock). When the demon appears, kill him by waiting for him to stop, then hitting him. Simply keep dodging when he follows.

To find the third demon, hit the gravestone in the top right graveyard above the river (the one in the corner).

To defeat Fosbus, aquaboots are needed. These are found by hitting a large palm tree north-west of the beach. Fosbus is then found on the Swamp Island. Warlic can be beaten by waiting for him to attack, sidestepping and then hitting him.

Jasba may be defeated in the same way, but it is more difficult because of the need to avoid missiles.

Heidi can be beaten by sidestepping, and rapidly slashing, ignoring damage being sustained.

Golvellius is killed by slashing at him, then allowing him to smother while still hitting him.

The following code allows you to reach the end of the game. All that is needed is the location of Golvellius, which a fortune teller will divulge.

ZL74 JQKH ZHM5 Y3W4
BU8S LVZO AX8D 6ZNO

WONDERBOY IN MONSTERLAND

Later on in the game, there are large empty walls. These should be knocked on regularly, because there are hidden doors which can be opened.

To get the Guidance Bell, head for the cavern on the second round and knock on the invisible door which lies on the third step above some lava. The woman inside provides a scroll for Catherine.

Go to Baraboro and enter the invisible door located next to an ordinary door on a platform above a doorway bearing a cross. The woman provides a Flute.

Go to Pororo Islands and head right until a tower appears. Climb the tower and blow the Flute. Head right and enter the mansion. Collect the Star Charm from the old geezer.

Next, head for the Undersea Kingdom of Catfish. Head left and enter a shop. Buy something, leave and then re-enter. The catfish should now have the Heroes Emblem. Knock on all the doors until someone offers the Ruby or the Bell: take the Bell to help negotiate the labyrinth.

■ Paul Tootell, Bolton

MIXING Business WITH LEISURE WILL BE A REAL EDUCATION

Commodore computer show

Britain's brightest event for Commodore computer users is back! And there's more to see than ever before.

This show has three main themes covering some of the major uses to which Commodore machines are put. There are over 70 key companies who will be exhibiting their latest products, which means that just about everything that's new in the Commodore world will be on show!

Novotel Exhibition Complex, Hammersmith, London W6
Friday to Sunday
June 2 to 4
10am-6pm Friday & Saturday; 10am-4pm Sunday

Business

Many companies will be demonstrating their latest software and hardware, specially designed to release the full business potential of Commodore computers.

As well as products for the C64 and Amiga series, you'll be able to try out applications for the price-beating Commodore PC compatible micros.

And you'll also be able to attend seminars covering all aspects of using Commodore micros in your business.

Leisure

The C64 and Amiga computers are the most powerful 8 and 16 bit micros for producing fast-action arcade quality games. The range of new software on show will demonstrate how these machines' power is continually being stretched, producing faster and even more addictive games with superb graphics.

If you're a keen game player, you'll find there's so much on offer at the show you're guaranteed a real treat!

Education

Commodore micros are now used as educational tools all over the country. With the development of BBC Basic on the Amiga, and the advent of Desktop Video (combining TV pictures with text and graphics), the range of educational applications is endless.

At the show you'll see how the latest software packages are making real breakthroughs in the educational sector, and be able to try them out for yourself.

Special Events

As well as special events and presentations, you'll also be able to meet some of your favourite celebrities, and maybe get a chance to talk with them about how they use micros in their work.

So for a great day out, whether you want to see what the future holds for Commodore computers, to buy the latest software or to get advice on specific applications, the Commodore show is the place to go. And if you send in the coupon today, we'll knock £1 off the price of each ticket!

● ***For the first time we are offering a family ticket for just £11 allowing entry for two adults and two children – saving up to £7 off the usual entry price!***

How To Get There
By Underground: *Hammersmith (Piccadilly, Metropolitan & District).*
By Bus: *266, 714, 716, 290, 30, 72, 73, 74.*
Car parking facilities available at the Novotel.

Advanced ticket order

Commodore computer show

POST TO: ***Commodore Show Tickets, PO Box 2, Ellesmere Port, South Wirral, L65 3EA.***

Please supply:

☐ Adult tickets at £4 (save £1) ..... £ _____
☐ Under 16s tickets at £2.50 (save £1) ..... £ _____
☐ Family ticket at £11 (save £7) ..... £ _____
Total £ _____

☐ Cheque payable to Database Exhibitions
☐ Please debit my Access/Visa card no:

Expiry date: /

Signed .....

Admission at door: £5 (adults), £3.50 (under 16s)

Advance ticket orders must be received by Wednesday, May 24

Name .....

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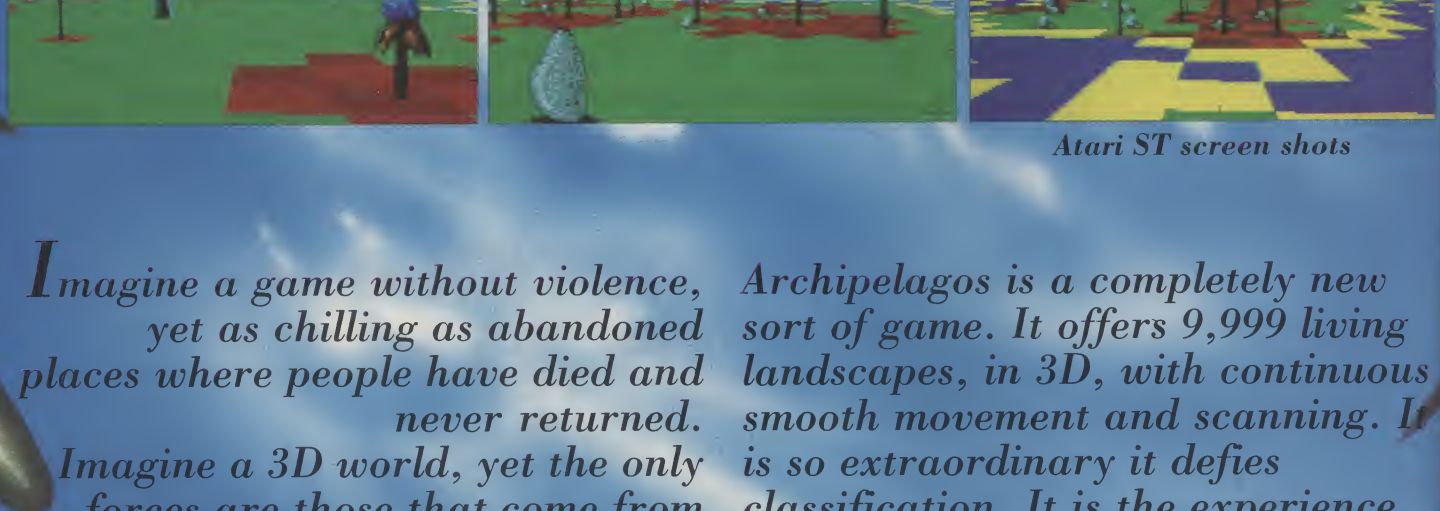
PHONE ORDERS: Ring Show Hotline: 051-357 2961
PRESTEL ORDERS: KEY *89, THEN 614568383
MICROLINK/TELECOM GOLD ORDERS: 72:MAG001
Please quote credit card number and full address

ARCHIPELAGOS



Atari ST screen shots

Imagine a game without violence, yet as chilling as abandoned places where people have died and never returned.

Imagine a 3D world, yet the only forces are those that come from the ground.

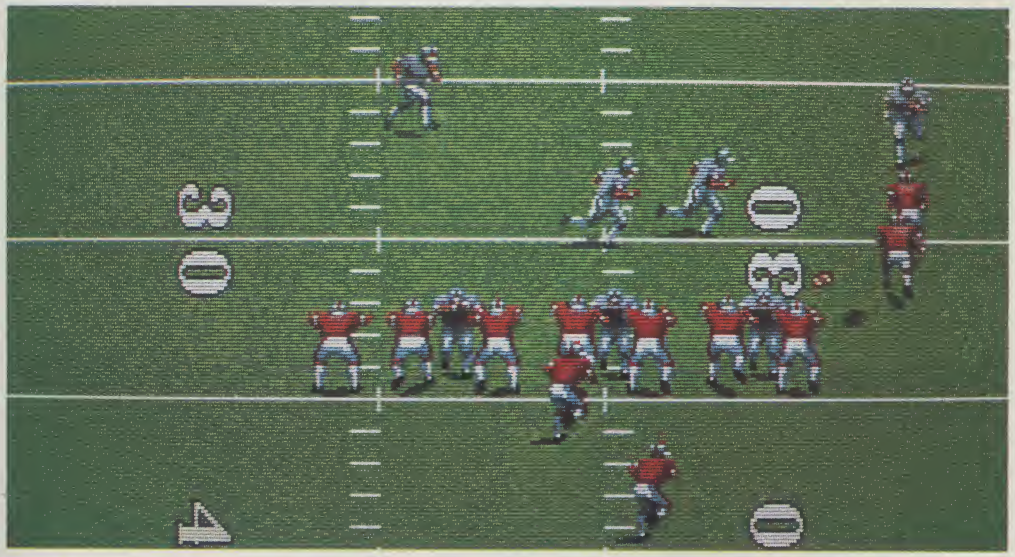
Imagine the danger of a tormented soul, carried aloft by nothing greater than the wind.

Archipelagos is a completely new sort of game. It offers 9,999 living landscapes, in 3D, with continuous smooth movement and scanning. It is so extraordinary it defies classification. It is the experience of the metaphysical.

Archipelagos is conceived and coded by Astral Software.

LOGOTRON
RECREATION

LOGOTRON LTD, DALES BREWERY, GWYDIR STREET, CAMBRIDGE, CB1 2LJ



TV SPORTS FOOTBALL

OK, AMIGA OWNERS: INTO A HUDDLE FOR SOME ON-THE-SPOT COACHING FOR MIRRORSOFT'S GRIDIRON GAME:

At the start of the start of the season, give the Left Half Back the Number One rank, and the following statistics: speed 8, strength 4, hands 4, agility 8. This should guarantee a per-game rushing average of around 9 yards per run.

Both receivers should have good hands, although the Right Wide Receiver has the opportunity to run more than the Left, so it's worth giving him a decent speed rating.

The Quarterback should be ranked at least ninth on the roster, with a fast throw and decent scrambling abilities.

Cornerbacks need to be fast and agile to cover the opposition's receivers well (speed and agility ratings of 6 are adequate). Don't bother giving the Outside Linebackers good ratings unless the 3-4 formation is to be used often: they don't appear in the 6-1 formation, and there's only one in the 4-3.

Offensive and defensive Linemen need only be strong with below average ratings for the other three factors.

Give one of the Inside Linebackers high stats (high speed and strength: 7 or 8), and the other below average ones. Control the higher-ranked LB during the game.

★ DEFENSIVE TACTICS

Against I-Formation

If the Wide Receiver switches pitch sides, the probability is that it's a pass. Nevertheless, the computer runs more from this formation than from the other two. The 6-1 formation is safe against a run through the centre, but position the Linebackers on either side of the defensive line. With 4-3 or 3-4, move the LBs close to the line.

When choosing the play, take 'Run Outside' but keep the controlled player close to the Wide Receiver.

Against The Shotgun

Nearly always a pass, so pull the LBs away from the line of scrimmage. However, beware of a run to the right, especially when the opposition are close to the endzone. 'Pass Defence' is the selection to combat this play.

Against Kicks

Blocking field goals is impossible until they're so low they would miss anyway, so this feature is pointless (notice the computer never attempts this action).

Against Pro-Set Formation

Impossible to tell what they're going to do on this one. When runing a 4-3 or 3-4, select a 'Blitz' and hope that they are passing. If in 6-1 formation, select 'Pass Defence' but stay ready for a rush.

Against Punts

NEVER run straight at the punter after the snap. It's practically impossible to block the punt and if it's a fake punt, the team can get stranded in the attacker's half, and the computer-controlled defenders will probably fail to stop a pass.

Use the 4-3 in normal and most situations, the 3-4 when more than 15 yards are needed or when the opposition are desperate. never use the 3-4 inside your own 20 yard line as the extra men are wasted in the small space needed to be covered. Only use 6-1 in extreme short yardage situations.

On the second play-calling screen look across to see the offences choice (you can easily tell a Shotgun and run outside for either run). Blitz and Run Inside are are risky and pointless. When selecting Pass Defence, select one Inside Linebacker and motion to the right end of the line. After the snap you can quickly reach the QB and sack him. If he does hand off, the runner runs into you and you can get him easily. On the Run Defence, select either Linebacker and stand directly opposite the QB facing the defensive line. If the play is a run inside, turn right or left and a diving tackle stops any gain.

The outside run can also be stopped quickly by the other three Linebackers and yourself. When the QB prepares to pass, you follow the Wide Receiver, until he is off-screen (the computer rarely passes off-screen and more players further back can cover him) and then move down to cover any Running Backs who have run out to receive. Before this time however, your other LBs will have sacked the QB.

The computer often throws to a Wide Receiver on the 4th down. Moving the Outside Linebacker back five yards seem to discourage this.

Blitz with Outside Linebackers on a computer Passing Play as this panics the QB into making a poor pass.

Occasionally, the computer QB tries a short pass to the Halfback. To cover this, mark and follow a receiver with an Inside Linebacker. Once the computer realises what is happening, he may run up the sideline. If he does, tackle him using the Inside Linebacker. If he attempts the pass, the same Linebacker should be able to cover the pass.

★ OFFENSIVE TACTICS

Throwing

Use Shotgun and the bottom right pattern for any distance of throw. Against a Blitz, three receivers are immediately open to catch the pass, while against a Pass Defence the Left Half Back running up behind the Left Wide Receiver is left free to catch the pass after the LWR has drawn all the cover away.

Running

Use I-Formation and the top left pattern when running. Here, the Left Half Back gets the ball and can go left as planned, cut back up the middle as two or three gaps open up, or cut across up the right. When Blitzed, dodge up the middle. When an Inside Run defence is used, go up the outside, and vice versa.

Short Yardage

Use Pro-Set and the top left pattern, where the Quarterback hands off to the Left Half Back who goes through the gap in the middle to pick up the yards. If the gap is covered or blocked, then go around either side.

Long Yardage

Use the throwing offence outlined above and then wait for the receivers to go upfield off screen. The very fast Left Wide Receiver and Left Half Back can get free ahead of the defensive backs and a perfectly-timed throw leaves the opposition coach cursing!

During the first half, passing on short yardage situations running with Quarterback on 3rd and 10 works well. After the first half, anything can happen. On punts, aim slightly to one side to give the opposition returner a hard time. Never pass from the Pro-Set or I Formation, only the Shotgun: this manoeuvre gives about two seconds' extra time to pass. Always press fire when tackled to avoid a fumble.

■ Simon Liu, Surrey & Janaka Alwis, High Wycombe

RAMBO III

If there are any butch hard-men (or women) who can't rescue the Colonel and get back to the good ol' US in one piece on the ST, they should play the game and get 5,000 or more to get on the high score table, then type in RENEGADE and press return. Now, when the film artwork is up on screen, press 1, 2 or 3 to start on a chosen level.

MIKE SINGLETON'S GUIDE TO MIDDLE EARTH

PART 1

Concerning the Ways of Orcs, Feats of Arms and the Schemes of Sauron in the realms of 8-bit Middle Earth.

WAR IN MID

The Dark Lord, Sauron, wields great power in Middle Earth and holds under his sway many regiments of foul and bloodthirsty Orcs, yet even Sauron is not unassailable, as those who have read the account of the War of the Ring in Professor Tolkien's book will well know. Those who so choose can make the same decisions as were made in the book and recreate faithfully the footsteps of Frodo Baggins and the Fellowship of the Ring, but you will find that success is by no means certain and that this path, like any other, is fraught with danger. Sauron's plan of war is flexible and changes subtly each time you play the game. Likewise, to succeed, your plan of war must be flexible too.

IN THE THICK OF BATTLE

In battle, your men will fight where they stand, without further instructions from you, but this is not the best way to kill orcs or to safeguard your warriors. Even in a hopeless situation, your battle tactics will determine just how many orcs are slain in the attempt.

As in most battles, the greatest advantage lies in concentrating your forces. Where one orc is fighting one man, neither has any special advantage apart from their own innate strength and skill. When one orc is fighting two men, the chances of the orc killing a man remain the same but the chances of the men killing the orc increase substantially. For example, if each of the men had a 10% chance of killing the orc individually, fighting together they would have a 19% chance of killing the orc and if there were three of them, it would become a 27% chance. Likewise, two or three orcs fighting just one man gain a considerable advantage.

In battle, then, the main priority is to engage each orc from as many sides as possible and to do this you must try to bring as many of your troops as you can into the front line. Even this task requires some thought. During the early stages of a battle, the orcs will be moving fast across undefended areas to get at your men and there is hardly any front line to speak of. If you mobilize men too close to the orcs, you'll

find it a waste of time because the orcs will probably attack them anyway. If you mobilize men too far away from the orcs, it will take them a while to journey across the battlefield, and meanwhile the orcs may have moved on or may even have been killed! The best policy is to mobilize nearby men that are not likely to be attacked immediately by the roaming orcs.

The next problem is how to mobilize them: do you use direct control or indirect control? In the early stages of battle, while the orcs are streaming across the battlefield, direct control is the best option. Although you have to steer the warrior to his destination (which sometimes means making detours), you can alter his course according to the flow of battle: and don't end up chasing orcs with the cursor! In the later stages of battle, which are generally less fluid, you'll find groups of orcs embroiled in hand-to-hand combat. Since these are relatively static, you'll be able to use indirect control quite effectively.

In the longer battles, you'll have time enough to manoeuvre your troops into battle formations. Due to the ebb and flow of battle and the movements of the orcs, your battle formations will be rough and ready rather than the precise drill formations of parade ground armies, but some formations can be extremely effective and against such deadly creatures as the Nazgul, fighting in formation is almost essential.

The simplest formation is the straight line of troops. Single orcs encountering your line will always find themselves outnumbered two to one. However, as soon as a horde of orcs throws itself against your line, that slim advantage is lost. Worse still, the orcs are forced into a line too and cannot easily be outflanked. A much more effective tactic is to form a V-shaped funnel into which the attacking orcs are channelled. The deeper into the funnel they march, the easier it gets for you to close the ends of the funnel and surround them. Using this tactic against a lone Nazgul, it's possible to have four warriors fighting against him simultaneously.

To use formations effectively takes some practice. Not only will you need dexterity with the joystick, but you will also need some quick thinking if you are to respond in time to the rapid flow of battle, constantly adjusting your formation as sections of your lines get knocked out. But, if you want to slay as many orcs as possible, formation fighting is the way to do it.

THE SCHEMES OF SAURON

As your armies and heroes march through Middle Earth, they will doubtless encounter roving bands of orcs and be forced to battle for their lives. Although the movements of the Enemy's armies always remain hidden, they are not random: there is a pattern to the schemes of Sauron and even a passing knowledge of this pattern is of great value.

Sauron, in his evil wisdom, has divided his armies into two groups: the assault armies and the hunting armies. The hunting armies roam Middle Earth tracking down particular individuals. The Dark Lord, for instance, has assigned to three Nazgul the task of hunting down Gandalf. The assault armies follow Sauron's complex campaign plan which assigns them each a series of objectives to take before the final assault on Minas Tirith itself.

Even Saruman and the orcs he controls have a part to play in the Dark Lord's plans, but Saruman's assault armies follow a separate campaign plan with more limited objectives, the bounds of their movements lying largely within Rohan and Gondor.

The campaign plan of Sauron is intricate in its detail and space only permits the broad outlines of his plan to be given here. The Dark Lord has marked out over sixty different objectives for his armies to take and secure. To allow his commanders some flexibility in the field, each objective is followed by two other objectives, either of which the commander can choose to attack as he sees fit. Even the Dark Lord himself cannot say which particular routes his armies will take when the choice arises and here lies the subtlety of his plan, for he knows that the Lady Galadriel has the power to look into his mind and know his thoughts. His plan is flexible enough to be unpredictable but by carefully laying out the spider's web of objectives, he can be sure that his strength is eventually brought to bear against whichever of the strongholds he desires most.

The final destination in Sauron's web of objectives is Minas Tirith, but before reaching this goal his armies can range far and wide, from Dol Amroth in the south to Dale in the far north, from the fair glades of Lothlorien to the Grey Havens in the west. Where the web is thickest, the armies of Sauron are more likely to be found. There are three main areas that Sauron concentrates on: the villages of the Shire in the north, the triangle of Helm's Deep, Dol Amroth and Minas Tirith to the west of Mordor, and the towers and fortresses of Mordor itself. The broad sweep of Sauron's plan is shown on the map, though much of the detail has, of necessity, been left out.

There are a number of useful hints given by this plan. Notice, for instance, the two way route through the Mines of Moria. The gate at each end of the Mines of Moria is a further objective from the other gate. Often, this means that a band of orcs will march through the Mines of Moria to the far gate and then, as soon as they reach that objective, select one of the two further objectives which just happen to be the gate they have come from. So, a band of orcs may spend some time just marching back and forth through the Mines. In this way, the Dark Lord keeps the passage through the mountains well patrolled.

Notice also the road through Mirkwood. This is a route for orc armies, but only for armies passing northwards. Armies found on this road make their way eventually either to Lothlorien or to Rivendell and thence to the Shire, since Sauron has specified no return routes but these.

It is also vital to understand the way the Dark Lord's twisted mind works. Any defeat he suffers blinds him with anger and goads him to seek revenge, distracting him from his master plan. For each army of his that is destroyed, Sauron will send a fresh army to hunt down the victor. Only when vengeance is fulfilled will that army then turn back to Mordor and begin to follow Sauron's campaign plan. The more successful one of your armies is, the more it will be hounded by Sauron. One tactic, knowing this tendency of Sauron's, is to draw off Sauron's strength by marching a successful army into the wilderness, with a trail of avenging bands of orcs doggedly following it.

NEXT MONTH

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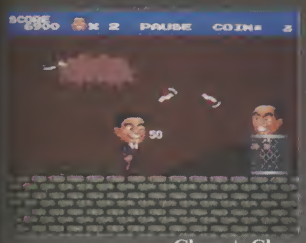

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MICRO MEDIA

ROBOCOP

Oh dear! The last C64 *Robocop* listing didn't seem to work too well past the first level. As compensation, here's a fully working listing which allows the tin copper to go rampaging all the way through to Level Seven (which may be corrupted – you have been warned).
Type it in, RUN it and load *Robocop* from tape.

```
10 FOR X=348 TO 439: READY: C=C+Y: POKE X,Y: NEXT
20 IF C=11644 THEN SYS 348
30 PRINT "ERROR IN DATA"
40 DATA 169, 128, 133, 157, 32, 86, 245, 169, 32, 141, 84, 3
50 DATA 169, 118, 141, 85, 3, 169, 1, 141, 86, 3, 96, 72
60 DATA 77, 80, 72, 169, 96, 141, 147, 172, 141, 104, 173, 169
70 DATA 142, 141, 243, 246, 169, 1, 141, 244, 246, 104, 173, 32
80 DATA 208, 96, 169, 62, 141, 39, 142, 169, 185, 141, 40, 142
90 DATA 169, 96, 141, 110, 176, 141, 36, 177, 169, 173, 141, 169
100 DATA 185, 169, 1, 141, 170, 185, 76, 0, 128, 169, 96, 141
110 DATA 221, 167, 141, 164, 168, 76, 0, 128
```

■ The Master Hacker

INCREDIBLE SHRINKING SPHERE

As if those wonderful *ISS* maps we printed in Issue 19 weren't enough, C64 owners can now play the game with infinite everythings, if they like.

Lines 80-100 are optional: 80 gives infinite lives, 90 infinite ammunition, and 100 an immediate, infinite shield. Type in all the other lines, RUN the listing and load *ISS* from tape.

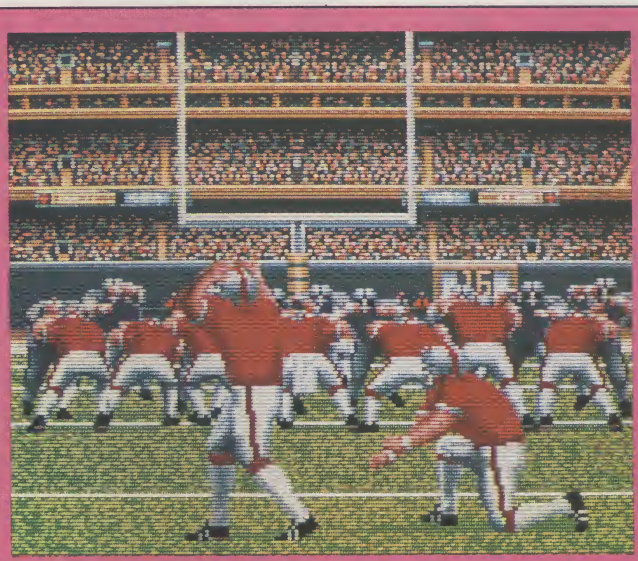
```
10 X=524
20 READY: IF Y<>256 THEN 50
30 SYS 524
40 POKE X,Y: X=X+1: GOTO 30
50 DATA 169, 128, 133, 157, 32,
86, 245, 169, 33, 141, 242, 2
60 DATA 169, 2, 141, 243, 2, 96,
72, 77, 80, 169, 46, 141
70 DATA 20, 5, 169, 2, 141, 21, 5,
76, 0, 4
80 DATA 169, 173, 141, 102, 153
90 DATA 169, 165, 141, 138, 160
100 DATA 169, 165, 141, 145, 154,
141, 0, 160, 169, 1, 133, 81
110 DATA 76, 9, 128, 256
```

■ The Master Hacker

XENON

No doubt there are loads of Spectrum owners gnashing their teeth at this amazingly difficult shoot-em-up. Try pausing the game (that's the BREAK key, not SHIFT as it says in the instructions!) and pressing the T, I, N and Y keys all together. Easy now, innit?

■ Steve Haw, Smethwick



TVSF: THE CHEAT

For all the less scrupulous Amiga owners who haven't got time to practice their art, here's a listing which enables individual players' attributes to be altered at will.
Type in the listing and save it to REEL 2 (at this point, we would like to remind you that ACE does not accept liability for any damage to original game disks caused by using this cheat - upon your own heads be it!)
Simply RUN the program to allow the attributes on disk to be altered.
NOTE: To change Anaheim, the first letter of the QB's name must be substituted for a " mark (don't ask – just do it!)

```
CLEAR ,,1024:CLEAR ,90000&
DIM NN$(18) ,AT(18,4)
STAR:OPEN "DF0:STAT/TDAT" FOR INPUT AS 1
A$=INPUT$(LDF(1),1):CLOSE 1
PT1:CLS:INPUT "WHAT IS THE NAME OF YOUR TEAM'S QUARTERBACK?";NAM$
PRINT "PLEASE WAIT...":FOR I=1 TO LEN(A$)
IF ASC(MID$(A$,I,1))<>ASC(MID$(NAM$,1,1)) THEN GOTO PT1A
FLAG=0:FOR J=1 TO LEN(NAM$)
IF ASC(MID$(A$,I+J-1,1))=ASC(MID$(NAM$,J,1)) THEN FLAG=FLAG+1
NEXT J:IF FLAG<>LEN(NAM$) THEN GOTO PT1A ELSE GOTO PT2
PT1A:NEXT I:PRINT "QUARTERBACK NOT FOUND - PLEASE TRY AGAIN."
WHILE INKEY$="":WEND:GOTO PT1
PT2:FOR J=1 TO 18:SST=I+(J-1)*25:NN$(J)=MID$(A$,SST,17):NEXT J
FOR J=1 TO 4:FOR K=1 TO 18:SST=I+450+(J-1)*18+(K-1)
AT(K,J)=ASC(MID$(A$,SST,1)):NEXT K:NEXT J
PT3:CLS:LOCATE 1,13:PRINT "NAME":LOCATE 1,37:PRINT "SPEED"
LOCATE 1,47:PRINT "STRENGTH":LOCATE 1,57:PRINT "HANDS"
LOCATE 1,67:PRINT "ABILITY"
FOR J=1 TO 16:LOCATE J+2,1:PRINT J:LOCATE J+2,5:PRINT"- ";NN$(J)
LOCATE J+2,40:PRINT AT(J,1):LOCATE J+2,50:PRINT AT(J,2)
LOCATE J+2,60:PRINT AT(J,3):LOCATE J+2,70:PRINT AT(J,4):PRINT:NEXT J
INPUT "(C)hange, (S)ave or (Q)uit ";Q$
IF Q$<>"C" AND Q$<>"S" AND Q$<>"Q" THEN GOTO PT3
IF Q$="S" THEN GOTO PT4
IF Q$="Q" THEN GOTO PT1
INPUT "What is the number of the player to be changed? ";NNU
INPUT "Which attribute do you want to change? (speed=1, strength=2, etc.) ";AAT
INPUT "What do you want to change it to? (1-8) ";NUA
AT(NNU,AAT)=NUA:GOTO PT3
PT4:B$=B$+MID$(A$,2,I+450-1-1)
FOR J=1 TO 4:FOR K=1 TO 18:B$=B$+CHR$(AT(K,J)):NEXT K:NEXT J
B$=B$+RIGHT$(A$,LEN(A$)-(450+I+72-1))
OPEN "DF0:STAT/TDAT" FOR OUTPUT AS 1:WRITE #1,B$:CLOSE 1:GOTO STAR
```

■ Charly Allen, Suffolk

Because of this month's mega-feature on War In Middle Earth, there's no £150 prize winner (well, Mike singleton doesn't need the dosh). Instead, there are now six £20 vouchers up for grabs. And in reverse order the lucky recipients are: Charley Allen, Suffolk; Daniel Russel, Wroot; Simon Liu, Surrey; Janaka Alwis, High Wycombe; Andrew Shorrock, Mellor; and Richard Davis of Woodside Park, London. Thanks very much and well done to all of you.

And many thanks, too, to everyone else who sent in tips. Keep them coming: you know it makes sense!

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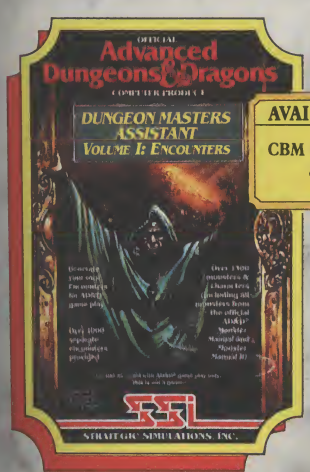

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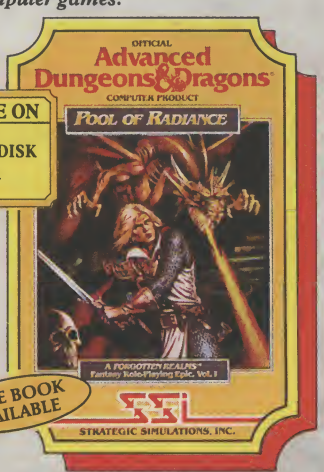

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BUDGET

The bargain basement section of this month's Screen Test has a distinct gambling flavour about it, with a package of gambling games, a one-armed bandit simulator and some pinballing action. The Titanic had a casino, too. Probably.

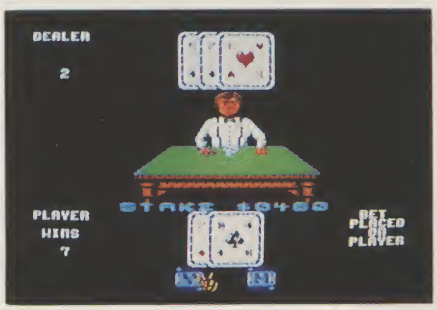
SCREENTEST SUPPLEMENT

LAS VEGAS CASINO

ZEPPELIN ● C64 ● £2.99

This one isn't quite as pointless as a fruit machine sim because card and dice games can be enjoyed for their own sake. This features four games: blackjack, baccarat, roulette and craps (stop giggling at the back, it's a dice game and you know it).

Each game is played with the computer as the house. The simplest is blackjack (pontoon) but the other three take quite a lot of knowledge of the rules in order to bet intelligently.



These are not very well explained, though, so players who don't know how to play baccarat or craps will have problems.

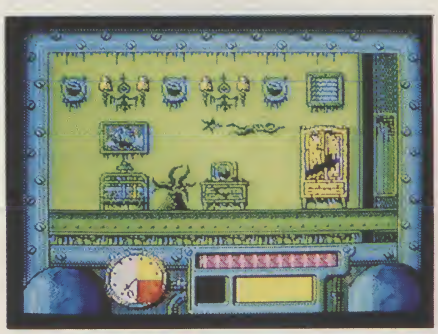
The only aim is to make money so there's no motivation except the enjoyment of the games themselves. The graphics are very ordinary except for a nice end screen when all the money has been lost.

■ ACE RATING 476

TITANIC

KIXX ● Spectrum, Amstrad ● £1.99

The pride of the Blue Star line now lies in kit form, one mile below the surface of the Arctic



ocean. Remote droids have pinpointed the great ship, but its secrets have remained a mystery: until now.

A new pressure-resistant diving suit has been developed which allows some brave person to actually swim down to the wreck: and this is where the player comes in. Armed with a harpoon gun and a limited number of harpoons, a suitably-attired diver must be guided through a labyrinthine cave system which is inhabited by all manner of dangerous aquatic beasties. Any contact with fish, squid, anemones etc causes the diver to lose oxygen from his tank, which can be replenished by picking up extra tanks. However, meeting a shark at close quarters is instantly fatal; death sees the mission restart from the cave entrance.

Having escaped the caves a password is provided to allow access to the second level, which begins inside the wreck of the Titanic. The diver's aim is to locate switches to open doors, find some explosives and blow a safe full of valuables, while avoiding a similar group of hostiles from the previous level.

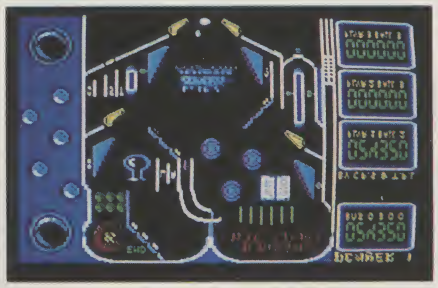
Control of the diver is a little haphazard, and the game is of the simple search 'n' destroy type. Once mapped out, it shouldn't take too long to finish, but having said this, *Titanic* does provide a reasonable challenge along the way.

■ ACE RATING 587

ADVANCED PINBALL SIMULATOR

CODEMASTERS ● C64 ● £2.99

As pinball games go – and there haven't been many on the C64 of late – Codemaster's entry to the genre is pretty good. The ever-important



ball movement is realistic, and it plays in a similar fashion to *Time Scanner*, in that specific features must be lit up to exit the screen.

In this manner, a magic book appears and is opened by crossing letters in rollover lanes; a potion is made to bubble and a Wizard's castle is slowly removed by hitting switches; and a forest barring the exit is partially demolished on contact with the ball. Access to the next stage is finally achieved by clearing the screen and hitting the exit volcano.

Unfortunately, there is only one screen to complete, which doesn't really offer much of an attraction to extended play. A 'tilt' function is sadly lacking, and there are a couple of bugs which make the ball fall through flippers and barriers, or even go sailing out of the play area!

Although the game's certainly enjoyable for the first few goes, the urge to play should disappear once the 'table' has been played through a couple of times.

■ ACE RATING 595

SUPERNUDGE 2000

MASTERTRONIC ● Spectrum, Amstrad ● £2.99

Of all the ridiculous things to do a simulation of, fruit machines are by far the dumbest. The WHOLE point of fruit machines is to win money: take the cash away, and they are almost entirely redundant.

However, experience has shown that there are people prepared to shell out hard cash for them. On the Amstrad, this one is very colourful but the reels are awfully slow. It also does not have as many features as the Spectrum. The Spectrum looks much worse but at least it has fast reels and lots going on all the time.

Basically this is computer entertainment for vegetables. Sit and watch the pretty reels spin round and jump for joy as they come to a halt on three lemons: or could it possibly just be one big lemon?

■ ACE RATING 312

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Horizontally scrolling arcade adventure, action packed! C+VG, March 1989

Y's

You are Aron Christian, a swordsman washed ashore by the might and fury of a hurricane. You were found half dead by a kind and humble fisherman and he restored you to health. The fishing village sat at the edge of the great plain. Rising in the distance was a small mountain range with an ominous tower at its peak. 'That is the Tower of the Doomed', the fisherman told you as they made the sign of the evil eye. 'It is the place where the troubles of our land began.' As you watched the tower, you knew that your destiny waited there.

The whole thing looks incredible – the best I've seen on the Sega. Y's offers depth and playability and will keep you engrossed for weeks. It's a must! C+VG, March 1989

UPDATES

BATTLEHAWKS 1942

LUCASFILM/US GOLD £24.99dk ● PC version reviewed Issue 17 ● ACE rating 928

Flying a Grumman F4F-4 20,000 ft above your aircraft carrier in the middle of the Pacific Ocean, you suddenly spot them: two Japanese torpedo planes, protected by two Zero fighters, closing rapidly in on the carrier.

That's a typical mission in this action-packed combat flight sim, where the emphasis is heavily on the combat side of things. As a pilot with either the Americans or Japanese, you can fly three types of plane – fighter, dive-bomber and torpedo – and participate in some thirty-two missions, divided amongst four of the major battles of the Pacific war.

Before attempting any of the missions (which range in difficulty from easy, through moderate and hard, to – impossible?) it's always a good idea to practise flying the various planes first. Staying in the air is easy, but hitting a carrier deck with a bomb from 2,000 ft is not so easy.

Once you start playing for real, and without using the options for unlimited fuel and ammunition and impenetrable armour (alter your plane in any way and your service record is not updated, so you don't stand any chance of winning medals) you may find the enemy planes a little tough, so you can alter the experience level of the enemy pilots, making them slower to react, and less accurate when firing back, to give yourself a fighting chance.

There are a host of views – both from within the cockpit and from outside, if you select to record some of your missions using the on-board camera, and then watch the playback – and on the whole, if you enjoy flying around blasting enemy planes out of the sky, you'll find *Battlehawks* very satisfying.

AMIGA VERSION

Terrific fast and colourful graphics plus some impressive and atmospheric sound effects all combine to ensure you'll keep coming back to this again and again.

■ **ACE RATING 935**

ATARI ST VERSION

Graphics are just as good, so is the gameplay. Highly recommended for flying, shooting, bombing and torpedoing fans.

■ **ACE RATING 930**

ULTIMA V

MICROPROSE £24.95 dk ● PC version reviewed Issue 13 ● ACE rating 928

This monster game kept RPGers countrywide waiting with bated breath for a long time, but once it arrived almost everyone agreed it was well worth the wait.

You control a party of adventurers roaming the countryside of the land of Britannia in search of ...erm... adventure. The main quest in the game is to wander into the recently-discovered Underworld and find out what happened to the party of adventurers lead by Lord British (who has been abduct-

AT A GLANCE

AMIGA

AFTERBURNER

ACTIVISION £24.99dk
Atari ST version reviewed Issue 16 – ACE rating 687

Undoubtedly the best of all the versions, but that still isn't saying much. Some nice

sampled speech accompanies the action, which is fast and colourful. Sadly the gameplay lets everything down again: lots of aimless flying around that requires little skill.

■ **ACE RATING 696**

CRAZY CARS II

TITUS £24.99dk
ST version reviewed Issue 18 – ACE rating 755

Apart from a subtler palette, police sirens and a beautifully smooth scrolling map, Amiga *Crazy Cars II* compares exactly to the ST release. Road and car movement is slightly less smooth than its predecessor, but this does little to impair the gameplay on offer.

■ **ACE RATING 755**

PRISON

CHRYSALIS £19.99dk
ST version reviewed Issue 20 – ACE rating 764

Identical in look, feel and play to the Atari version, with the added advantage of only one game disk. Although sound is adequate, the Amiga isn't given the chance to show off its musical prowess, save for a pleasant loading tune.

■ **ACE RATING 764**

VICTORY ROAD

IMAGINE £24.95dk
Amstrad version reviewed Issue 18 – ACE rating 642

Not an impressive offering on the Amiga: the graphics don't make the most of its

abilities and the gameplay is straightforward, in *Commando* style. The additional weapons are good, but basically it's no better than it was in the 8-bit versions.

■ **ACE RATING 642**

ATARI ST

ROAD BLASTERS

US GOLD £19.99dk

C64 version reviewed Issue 12 – ACE rating 654

The 8-bit versions never quite managed to emulate the feel of the coin-op, but on the ST a much better game has emerged. The feeling of movement on the road is convincing and the control of the car is much easier, making driving a pleasurable experience.

The early levels are quite easy, serving as a nice introduction. By Level 12 things have hotted up, and it becomes a real test of survival, so it's well paced to ease you into things and then provide a long-term challenge.

The graphics are colourful and detailed: meaty explosions add to things nicely. The engine noises are suitably revved up too. The loading is the same painfully slow system as on *Out Run* but at least there are no delays during the action. A high quality conversion that will please fans of the coin-op, and many more besides.

■ **ACE RATING 775**

SPECTRUM

CAPTAIN BLOOD

EXXOS £9.95 cs £14.95 dk

ST version reviewed Issue 7 – ACE rating 887

It's been a long while coming, but the Spectrum interpretation of Infogrames' (now Exxos') *Captain Blood* has finally landed. Apart from the inevitable cosmetic differences, the game remains the same: thankfully, the arcade planet landing sequence is well represented and the adventure aspect remains intact. In fact, the only real drawback of this (and other) 8-bit incarnations, is the lack of mouse control for which the game was primarily designed.

■ **ACE RATING 863**

ELIMINATOR

HEWSON £9.99 cs, £14.99 dk

ST version reviewed Issue 13 – ACE rating 904

Although the Spectrum copes quite well with the 3D nature of the game, the lack of colour often makes it difficult to differentiate between aliens, solid objects and collectibles. The coarser update also removes the pixel-precision which made the ST version so enthralling.

■ **ACE RATING 755**

PACLAND

GRANDSLAM £8.95 cs £12.95 dk

The Spectrum version of this unusual Pac variant follows the arcade game pretty

ed as well, so things in Britannia aren't as wonderful as they might be now the new government's in power). Like all good adventure RPGs, though, there are numerous sub-quests for you to take or leave, and plenty of fights with evil trolls and the like to get involved in. There are loads of people to interact with – some of whom you can recruit – and once you start to play you'll find life becomes less black-and-white and simple and far more grey and complicated. There are twists and turns to the game that keep you on your toes constantly and you can never trust anyone completely.

The graphics are simple – an overhead view of a character representing your party – but the whole game world is surprisingly believable. The whole *Ultima* series is good, but *V* is the best yet. There's plenty to keep you playing for months and if you've never played an RPG before, you'd be doing yourself a favour by getting a copy of this: the game that could bring adventuring out of its ghetto.

ST VERSION

The graphics are spartan (even a PC can do better). The terrific gameplay grips and holds you.

■ **ACE RATING 935**

DOUBLE DRAGON

MELBOURNE HOUSE £19.99dk

The monster arcade hit sired conversions to all formats, and the two recent 16-bit releases profit most from the operation.

Faced with the standard kidnapped girlfriend scenario, two players are charged with fighting their way through five levels of ninja-types in order to reach the leader's HQ and rescue said girlie.

A variety of warriors crawl out of the woodwork in order to inflict bodily damage upon the do-gooding duo, but the brothers acquit themselves well by using a series of kicks, punches and overhead throws. Should an assailant drop a weapon, one of the Lees may pick it up and continue the battle more favourably equipped.

UPDATE SPECIAL

ST VERSION

Unbelievably easy, the ST version was completed at the first sitting in one player mode. Irrespective of any aesthetic factors, this makes *Double Dragon* a total waste of time and money.

■ **ACE RATING 275**

AMIGA VERSION

Smooth scrolling and faster gameplay make this more comfortable than the Atari. However, it's only made slightly harder by dint of hazards on the final level and should similarly be avoided.

■ **ACE RATING 298**

EMLYN HUGHES INTE

AUDIOGENIC £9.95cs, £14.95dk

Crazy Horse is better known these days for game shows than football but, for a game, being associated with somebody who has boundless enthusiasm is no bad thing.

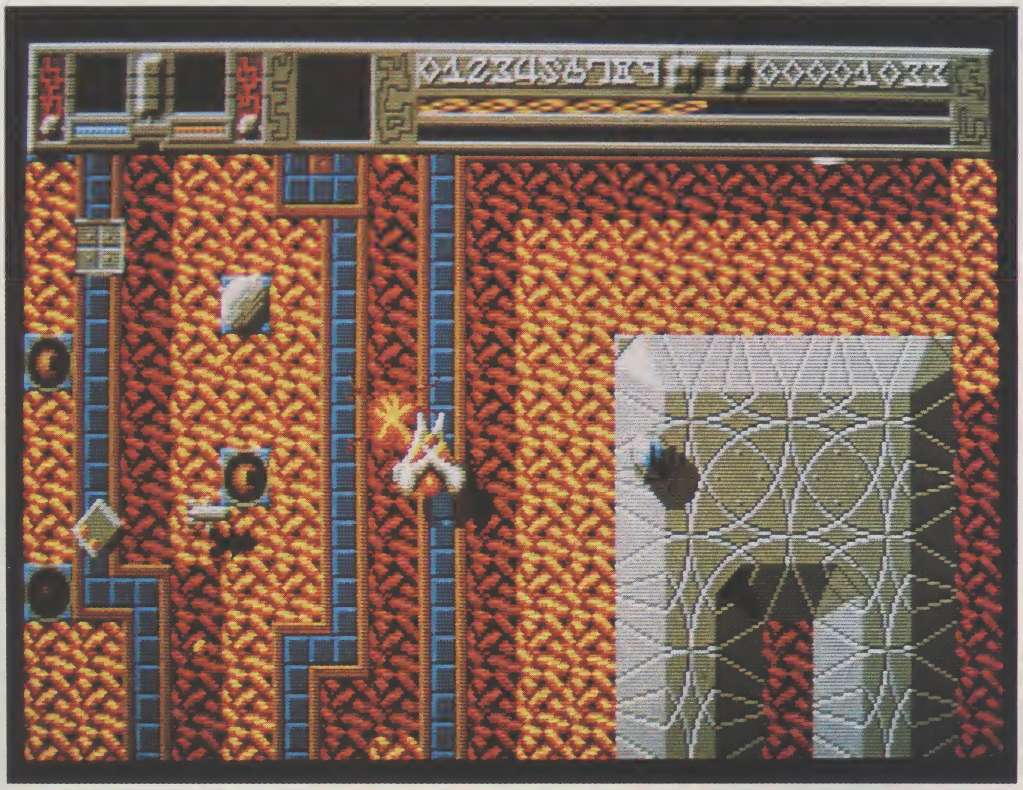
What most football games fail to achieve is the balance between strategy and arcade action. Here there is not only plenty of on-field action to keep the player occupied, but important off-the-field decisions have to be taken too. This is mainly a matter of picking the team, which becomes most relevant when playing a long season, because players tire and affect the team's performance.

The 3D side-view of the pitch is a familiar one for football games, as are the horizontal scrolling and the player selection method. The range of features during a game is impressive: sidestepping, barging, backheels, heading, sliding tackles, free kicks, corners, throw-ins, penalties and the ability to control kicking height and direction. The best part about this being that you can actually use all these easily, and are not forced to perform half-a-dozen joystick movements.

There are also umpteen options for altering the game, such as having two players against the computer, an automatic goalie, cup or league competitions, substitutes, 10 skill levels and so on.

All in all, this is an extremely thorough game that provides stiff competition to *Microprose Soccer* for the title of best football game around.

● Bob Wade



FUSION

UPDATE SPECIAL

ELECTRONIC ARTS £24.95dk ● Amiga version reviewed Issue 15 ● ACE rating 607

Gleefully claiming to be nothing more than a computer game (no pretentious scenario rubbish here) *Fusion* sets the player off on the task of visiting a series of landscapes, collecting keys to unlock sections of maze, and attempting to gather the separate sections of a large bomb. To facilitate the negotiation of some mazes, the player's craft splits into a hovering mothership and a land-based crawler, which are used individually but in conjunction with each other.

Each level is littered with enemy gun emplacements, missile silos and hostile vehicles, which sustain a constant barrage of fire. However, both of the player's craft are fitted with blasters and all enemy craft and installations can be destroyed.

Thankfully, Bullfrog have redesigned *Fusion*, tailoring it to the ST's capabilities rather than trying to emulate the game as it appeared on the Amiga. This has worked to the game's benefit, and so it is now more playable than its Commodore counterpart: but certainly no easier.

ST VERSION

The alien levels now scroll vertically only, but they retain the terrific parallax effect and are just as colourful as the Amiga's. Sound is limited to a cacophony of gunshots and explosions, which grows tiresome after a while.

■ **ACE RATING 712**

E RNATIONAL SOCCER

SPECTRUM VERSION

The graphics obviously are not so good, but despite being small they do the job nicely. Sound effects are in a similar vein to the C64. In gameplay they are very close: both versions are very easy to get to grips with.

■ **ACE RATING 887**

C64 VERSION

The graphics are the blocky variety expected of the C64 but they are functional. The sound effects are limited but all you need are a roaring crowd and a few ball and whistle effects.

■ **ACE RATING 887**

closely, lacking only in colour and some decent collision detection. The coin-op was not really that hot in the first instance, but Grandslam have produced a truthful and playable conversion, which might have more of an appeal to younger gamers.

■ **ACE RATING 690**

PC

BILLIARDS SIMULATOR

ERE INTERNATIONAL £19.95dk
Amiga version reviewed Issue 19 – ACE rating 819

Every bit as good as the Amiga version both graphically and in gameplay. The same wide range of options for changing gravity and the table specs too. It's not as interesting as *3D Pool*, but it's a lot of fun.

■ **ACE RATING 819**

DALEY THOMPSON'S OLYMPIC CHALLENGE

OCEAN £19.95dk
Amiga version reviewed Issue 15 – ACE rating 680

Ocean's aged Daley licence was resurrected with the appearance of *DTOC* late last year on all the major formats. Now, with the release of the PC version, the set is complete. The tedious 'joystick waggling' gameplay is still in evidence, compounded by reliance upon an analogue joystick or keys. PC *DTOC* also suffers from predictably poorer graphics and, more importantly, a ridiculous game structure which is crippled by vast amounts of disk swapping.

■ **ACE RATING 474**

STAR GOOSE

LOGOTRON £24.95dk CGA, £29.95dk EGA
Atari ST version reviewed Issue 13 – ACE rating 517

An excellent conversion with some superb graphics, lots of detail and smooth vertical scrolling too. The gameplay is virtually identical to the ST: probably under-rated in the original review. It still hasn't got enough variety, but it's a good example of what is possible on a PC, even if the EGA price is a little bit steep.

■ **ACE RATING 614**

TECHNOCOP

GREMLIN £19.99dk
Spectrum version reviewed Issue 16 – ACE rating 804

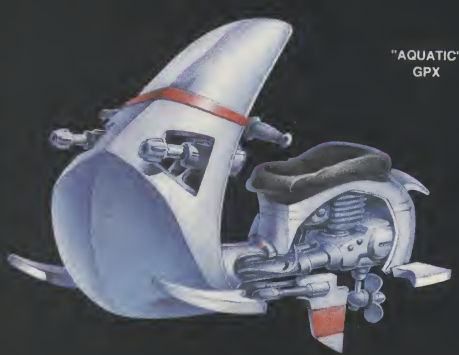
Looks good but unfortunately is very slow, particularly in EGA. The keyboard response is sluggish, particularly noticeable when exploring the buildings. The gameplay remains intact despite the slowness, but it's not as enjoyable as previous versions.

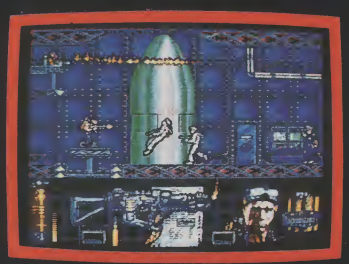
■ **ACE RATING 703**

NAVY MOVES

VEINTINUEVE-UNO, S.A.

"AQUATIC" GPX





AMIGA

FLAMMENWERFER FLAMETHROWER 5.56 mm. FA RIFLE

YOUR MISSION:
DESTROY THE U - 5544 NUCLEAR SUBMARINE

To accomplish this you have to master all types of oceanic warfare:

ON THE SURFACE, piloting your pneumatic launch and fighting against the enemy comandos on their aqua-jets.

BENEATH THE WAVES, where you will use a harpoon with explosive arrows to make your way through the shark infested waters.

IN THE DEPTHS OF THE SEA, inside a bathyscaphe loaded with missiles, fighting against bloodthirsty octopii and a giant sea-monster.

INSIDE THE ATOMIC SUBMARINE, sustaining man-to-man combat against the crew. Your flamethrower-rifle will be a great help, but you will also need to be an expert «hacker», manipulating the submarine's computers.

NAVY MOVES INCLUDES A DOSSIER FOR THE COMANDO AND A COMPLETE [illegible] OF THE SUBMARINE.

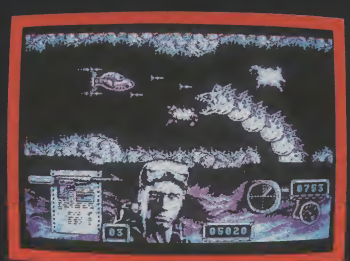
SPECTRUM·AMSTRAD·COMMODORE 64 £ 9[illegible]

AMIGA·PC & COMPATIBLES £ 24.95

ATARI ST £ 19.95

PC

BATHYSCAPHE



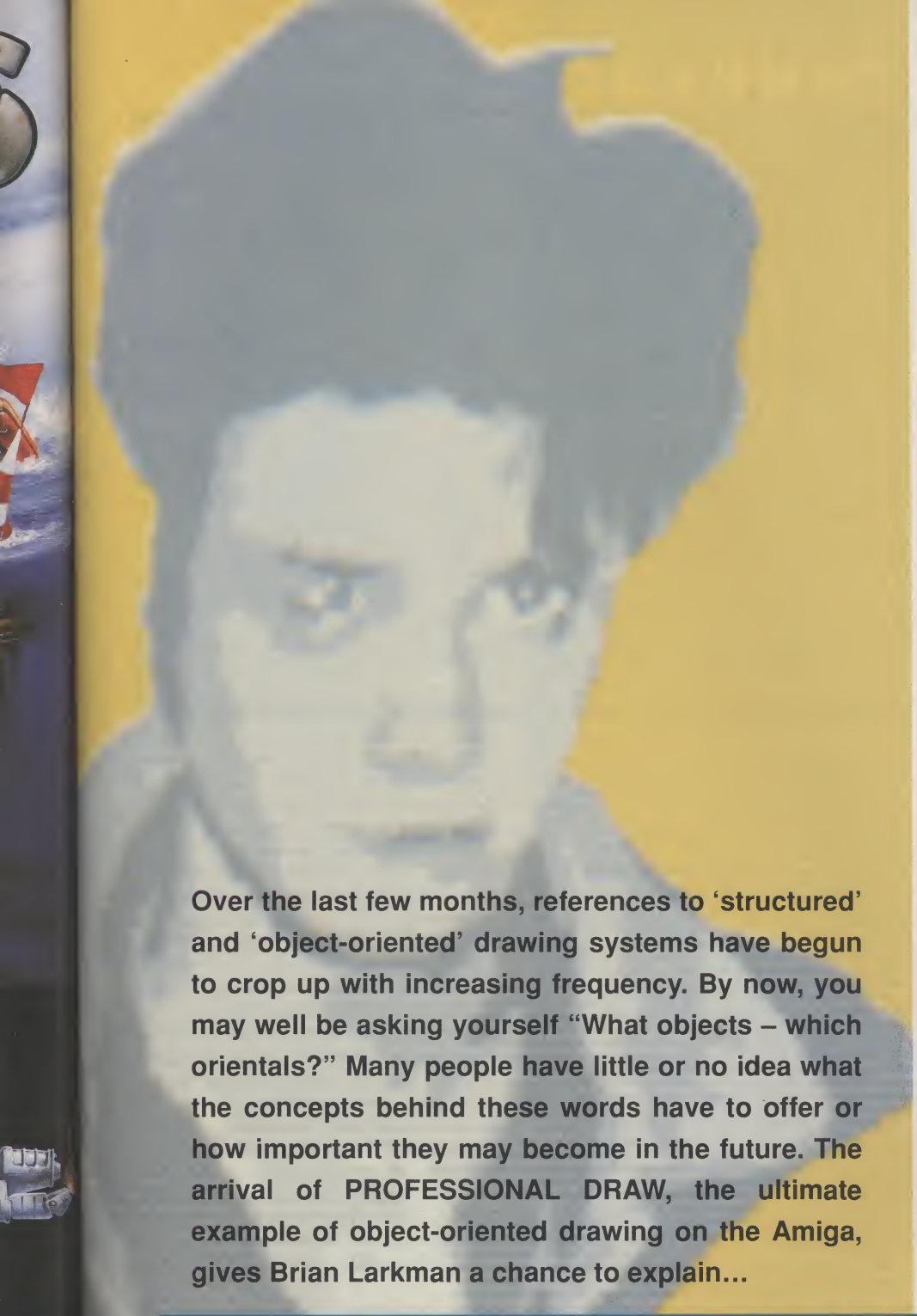
ATARI ST

DINAMIC

DISTRIBUTED BY

ELECTRONIC ART[illegible]

Electronic Arts. 11-49 Station Road, Langley, Berkshire SL3 8YN. England



Over the last few months, references to 'structured' and 'object-oriented' drawing systems have begun to crop up with increasing frequency. By now, you may well be asking yourself "What objects – which orientals?" Many people have little or no idea what the concepts behind these words have to offer or how important they may become in the future. The arrival of PROFESSIONAL DRAW, the ultimate example of object-oriented drawing on the Amiga, gives Brian Larkman a chance to explain...

ORIENTAL OBJECTS

Professional Draw has been designed as a partner to *Professional Page*, one of the main DTP programs for the Amiga, also from Gold Disk. The layout of the screen reflects this; menus, status bar and ruler across the top; ruler on the left; and tool palette on the right, using the chunky icons required by the Amiga's multiple resolutions. In the efficient way of most good WIMP programs, the frequently-used tools – freehand draw, text, polygon, ellipse, scale, rotate, distort, mirror, magnify, marquee, pointer, etc – are all icons on show; the modifying requesters are accessed by double clicks on the icons; and filing, printing, colour or line-weight changes, preferences and other less immediate tasks are all menu-driven.

Since *Pro Draw* is an object-oriented drawing system employing both bitmap and structured drawing techniques, it gives us a good opportunity to define our terms. The drawing method we all know and love from our familiar paint programs is **bitmapped** – the drawing area is a map or grid of thousands of pixels all the same size, each of which can be any one of the available colours. Every mark that is made changes the colour of a group of pixels and hence the map. If the image is saved to disk, or transformed in any way, ALL of the pixels in the map must be stored or acted upon, even if only three pixels on an otherwise blank screen are changed.

An **object-oriented** program, by contrast, ignores the background. It is only concerned with the changed parts of the screen, the objects. Each of these is stored separately in memory and can be affected independently on screen – moved, sized, overlaid or brought to the front – just like cut-out pieces of paper. Most games use similar bitmap sections, animated to become sprites.

In many DTP programs, the objects are either blocks of text or sections of bitmapped images. Unfortunately, when bitmapped images are printed they retain the resolution or dot size used to produce them. Even on the best computers, this 'grain size' is quite coarse. Similarly, if a bitmapped object is transformed, the original graininess is retained unless very sophisticated (and very slow) smoothing techniques are used. One look at the output from

any normal drawing program on almost any printer – dot matrix, ink-jet, laser or wax-transfer – is evidence that there must be a better way. Areas that have been scaled up or down lose detail and gain chunkiness, even when anti-aliasing or smoothing have been applied. Even simple transformations, like rotation or perspective distortion, result in a disproportionately great loss of clarity.

What is required is a method that utilises the maximum resolution of the display or printing method available, independent of resolution. With a **structured** system, one that uses **vectors**, these defects just do not happen.

A vector is a line that is described in terms of its length AND its direction. In most vector-graphic drawing systems, this is achieved by defining both ends of the line as a set of coordinates, either x and y for a 2D system or x,y and z for 3D. The advantages of this approach are threefold. First of all, it is economical of memory: only the data referring to two pixels in a line have to be described or saved to disk, the others are created each time the line is drawn. Second, the data relating to a particular object can be easily transformed, ie offset, rotated, scaled, distorted. Third, nothing is committed to the screen permanently: any object or point can be selected independently and its attributes changed.

To sum up: graphic images can be of two types: bitmapped or structured. Bitmapped images are easy to produce, but difficult to change without losing detail. Vector (structured) images are difficult to produce, but easy to change, regardless of resolution. Object-oriented systems can use both types of image and can therefore always take advantage of the most appropriate method.

TEXAS

One of the main claims of *Pro Draw*'s object-oriented system is its ability to trace over a bitmap image, so perhaps a trial illustration using this technique might show up the program's strengths and weaknesses. The picture chosen was of the four heads of Glasgow band, Texas. Each head was treated in a different way. Some of the problems encountered are described below.

This was originally a high-resolution, interlace, 16-greytone digitised picture of the band Texas. *Pro Draw* reduced the tones to four and scaled it to fit the page. For this reason, it takes a long time to appear on screen initially, or to redraw. Head 1 has been left exactly as the original. Head 2 was traced using the free-hand tool with a four-point-width line. Head 3 shows the range of greys available, layered one above another. Zooming in on the bitmap allows a very high degree of control of the line, but autotrace would have saved a lot of trouble. Editing was made more difficult by the problems of layering each of the tones correctly. Head 5 is not a member of the band, just Head 4 cloned and its colour and line thickness attributes changed.

PROFESSIONAL CRAWL

Diving straight in and loading a bitmap, the first thing you will notice is that it is incredibly slow arriving on screen. To be fair, this is a problem with all object-oriented systems – even on the Mac II, *Freehand* seems to take forever to redraw an image – nevertheless, *Pro Draw* is too slow. The manual agrees that bitmaps slow the action and describes a strategy to speed things up: mainly, to avoid scrolling. Like most good drawing systems, *Pro Draw* operates in a draft as well as WYSIWYG (what you see is what you get) mode. This also helps, because it suppresses redraw of the bit image.

TOOLS

Most of the editing tools are quite ordinary in operation, except for distort, which is rather unusual and interesting. Selecting the distort icon places a rectangular box around any selected objects. This box is itself a bezier object. Dragging any one of its points curves the edges connected to that point. The manual evokes the effect of this action perfectly:
"Think of the rectangle as a rubber sheet on which the object is printed. As a side or corner of the sheet is pulled, the shape of the object is distorted."

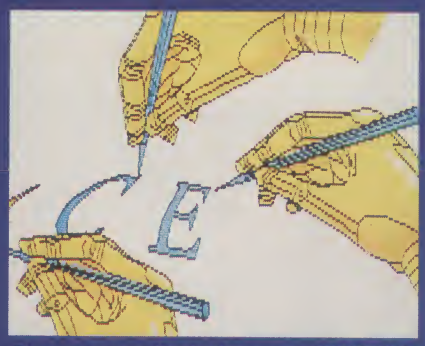
TEXT

Pro Draw is not intended to be primarily a text handling system: *Professional Page* is for that. Nevertheless, it has two fonts available that are structured and therefore easy to manipulate. The fonts provided – with and without serifs – both look good on screen, but they suffer from one fundamental flaw. The apparent holes within letters such as a, b, d, or e are not transparent: they are, in fact, objects drawn in the background (paper) colour and layered above the main letter. This limitation is especially annoying if the text sits above a fairly detailed object, as is the case in the 'Texas' illustration.

TRIAL BY SEPARATION

Although colour has always been difficult, expensive or just impossible to output from a drawing program (as opposed to a painting program) the current generation of packages provides full-colour facilities so that high-quality

***Professional Draw* in Draft mode, which allows quicker re-draw of the image when changes are made.**



The same illustration in WYSIWYG mode, but without Interlace. Note the considerably lower quality than...

...in full Interlace mode, which produces much cleaner lines without stepping, although the flicker can annoy.

images that are destined to be professionally printed can be colour separated. The cyan, magenta, yellow and black components of each shade are printed out separately. *Professional Draw* can produce these separations, but problems are created by the limited – and limiting – range of colours available for on-screen display.

Using the Amiga's highest resolution to give the most accurate representation on-screen means that only 16 colours from 4000 can be used at once. Nine of these – black through seven greys to white – are set and unchangeable, leaving just seven for the user. This is not quite as limiting as it seems, because for colour separation and colour printing each object can be assigned almost any one of the Amiga's 4000 colours, regardless of what colour appears on screen. Nevertheless, using just seven colours to represent all the tones required can present a real hindrance to efficient drawing, if a range of realistic matching tones are required. The problem is not helped by the manual which provides only very terse instructions and only one limited tutorial example.

Head 4 in 'Texas' was an attempt at introducing flesh tones. It failed because too many screen colours had been introduced. The program seems to offer no method of removing colours from the palette, though once there they can be changed (not the names though – hence a white face labelled as pink).

LAYERING

Fundamental to the object-oriented system of drawing is the idea of layering. Each object is in effect a 2D slice of image, and like paper cutouts, the slices can sit on top of each other. The ability to move these slices up and down through the pile can make this drawing method very easy because it eliminates any worries about which part of the image is in front of other parts. New objects can be pushed back as far as necessary. *Pro Draw* provides the ability to change the stack by pushing or pulling any object to the back or front. At times this can be a little confusing and lots of shuffling is needed. A numbering system for layers, or more simply the ability to push and pull by just one layer would be perfect.

CONCLUSIONS

The arrival of *Professional Draw* is an important development, for the Amiga and for other semi-professional micros like the Atari ST and Acorn Archimedes, because it points the way forward in the future. Similar software has been available for more expensive systems – especially the Macintosh – for some time, but the Amiga obviously has a high enough profile now for developers to provide this level of support. It is only a matter of time before the ST is similarly provided for.

Professional Draw still has a long way to go before it can rival or even approach Mac products like *Freehand 2*, *Illustrator 88* or *Superpaint*, but then so has *Professional Page*. Nevertheless, it has some worthwhile and unique attributes, especially the distort tool. If colour were easier to use and included patterned and shaded fills, if layering were more controllable, if text voids were transparent, and if it could autotrace around bitmaps, it would most likely be a winner.

That's an awful lot of 'ifs', though. ■

GRAPHIC ACCOUNTS

A sharp slap on the wrist from our illustrious editor – or the telephone equivalent – reminds me that Graphic Accounts has been neglected of late, so here's a round-up of graphics products that have hit our desk running.

■ *Deluxe Paint III* (Electronic Arts, Langley Business Centre, 11-49 Station Road, Langley Nr. Slough, Berks SL3 8YN tel 0753 49442) is in fact one of the most recent new products, but it is so good that it has to go straight to top of the heap. Would you believe, to quote, "...paint

and animation in one incredible tool." For once, the hype is mostly true. The latest version of the best-selling paint program for the Amiga is greatly improved and includes what must be the easiest to use animation tools yet. Almost any transformation of a 2D brush can be animated, including moving in the z dimension. Best of all, an animated object can be picked up exactly like a normal brush and then painted anywhere on screen. A full review is under way: *DPIII* is multi-tasking even as I write.

■ Aegis (HB Marketing, 22 The Green, West Drayton, Middlesex, UB7 7PQ tel 0895 444433) have been working away hard for the Amiga too over the last six months, developing animation and presentation software that extends the *Videoscape* range. *VideoScape 3D Version 2* has been around for quite a few months but only recently has there been time to have a good look. A great improvement on the original, it now supports PAL, HAM mode, smooth rounding, chrome surfaces, extra colours in the regular mode, extra half-brite support, hierarchical motion and easier operation with new menu options. It is still not easy to use though, especially when modelling objects, so Aegis have thoughtfully provided the following:

■ *Modeler 3D* (HB Marketing) is a 3D object modelling and generation system that is designed to support *VideoScape 3D* though it produces objects that can be used with most other rendering systems on the Amiga. Almost every imaginable conventional modelling tool has been provided, plus the ability to create camera and object motion files.

■ *Lights! Camera! Action!* (HB Marketing) is the easy-to-use Aegis bid not to be left out of the Desktop Presentation arena and it combines a number of features that put it on a par with the rest of the competition. It allows IFF pictures, 'anim' animations, and 'Sonix' instruments and music to be combined to produce polished desktop video presentations. It includes over 40 special effects such as wipes, fades, dissolves etc and is designed to work with the *SuperGen* genlock for smooth dissolve effects.

■ *Moviesetter* from Gold Disk (HB Marketing) is in some ways similar to *Lights! Camera! Action! (LCA)* but it is designed, as its title suggests, to let you see what you animate as you produce the animation. Using an on-screen storyboard, *Moviesetter* makes it easy to move through the animation, editing sections and playing them back to see the results immediately. Included with the program is a supply of 'movie clip-art' and stereo sound samples that let you start directing straight away. A full review will follow soon!

■ The *Cyber* Series for the ST from Antic and Electric Distribution (Meadow Lane, St. Ives, Cambs PE17 4LG) has also been growing at an alarming rate. So much so that we will have to be doing a feature on the whole range in the near future. Just to be getting on with are *Cyber Sculpt* and *Cyber Texture*, both designed to work with *Cyber Studio* (reviewed ACE 4). *Sculpt* allows objects to be treated as if they were malleable, like lumps of clay, "...pushed, pulled, and pummelled into endless shapes." It seems to be very easy to use, the only limitation being the number of colours that a standard ST can display. *Texture* transforms *Degas*, *Hyperpaint* or *Neochrome* pictures, or *CyberPaint* animations into *Cyber Studio* CAD3D objects. Any painting or animation can thus be wrapped around any extruded, spun, or sculpted object. Texture mapping has arrived on the ST in a big way!.

■ *Render Bender* for the Archimedes from Clares (Clares Micro Supplies, 98 Middlewich Road, Rudheath, Northwich, Cheshire CW9 7DA) enables the user to construct scenes using 3D objects and ray tracing. These can then be compiled to produce smooth animated sequences. A final release copy has not been seen yet, so how well it works is still to be discovered, but with the speed of the Archie and 256 colours, ray tracing should be fast.

■ Readers' pictures are another feature that has been neglected for many months, but don't despair artists: you are not forgotten. Very soon we intend to start a new feature, covering just this area. Selected pictures will be published in ACE, each with a few tips and words of advice on how to improve your work. And those of you who have sent an sae for the return of disks or tapes should be seeing those long-lost relations again before very long.

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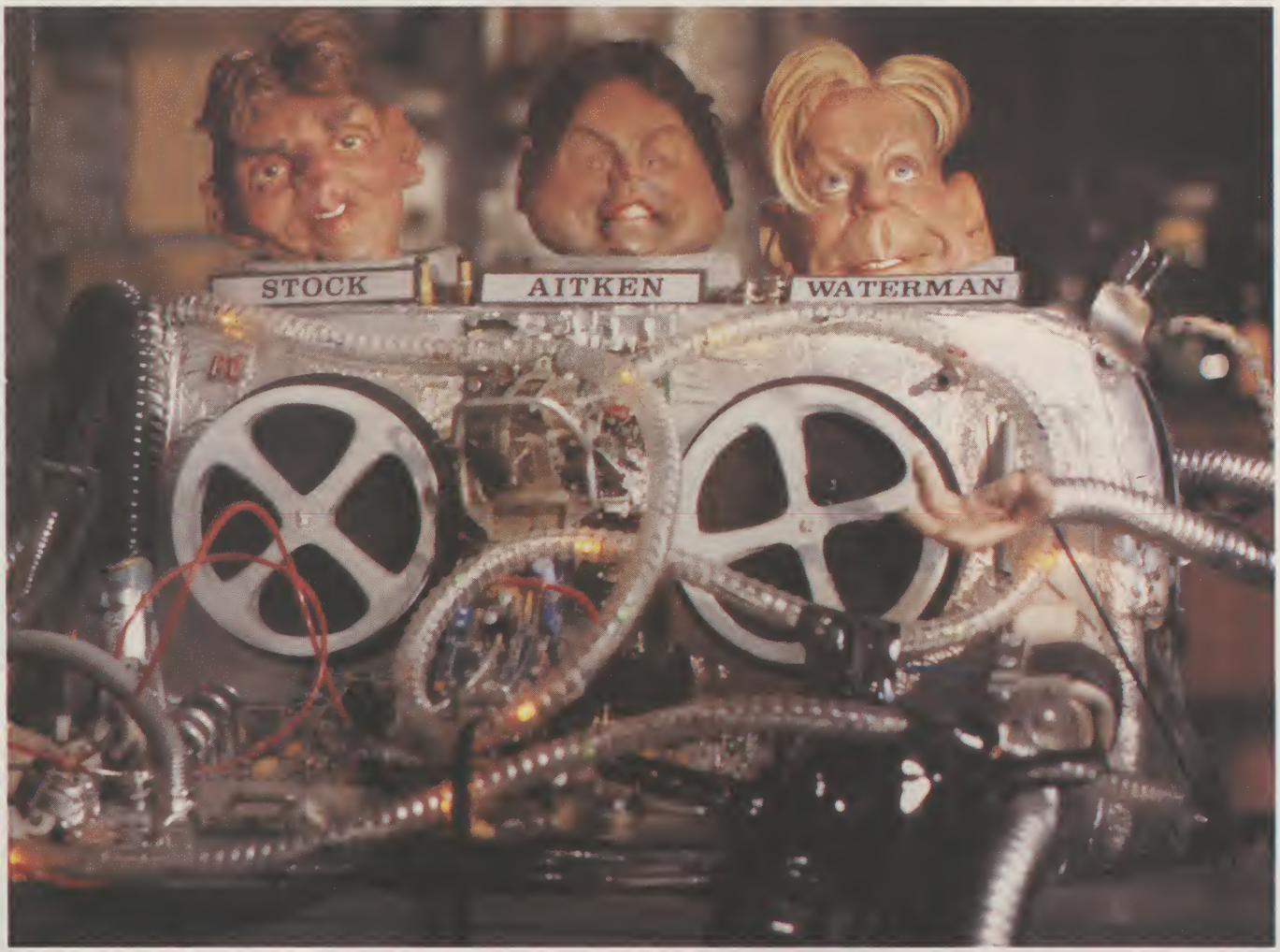
The last series of Spitting Image, and the cover of our last issue, featured a send-up of Stock, Aitken and Waterman: a machine with a lever on the side that could be set to Kylie, Rick or Bananarama. Ironically, this was not very far from the truth. The machine in question is, in reality, a sequencer: and it is this piece of kit that gets this month's in-depth treatment.



A SEQUENCE OF EVENTS

Following last month's monster overview of all things musical, we press on in the quest for instant erudition: in other words, beginners start here. In each of the next few issues, I shall be covering a particular field of music apropos computers and running through the basics of how it works and what it does. Even if you are not a rank and file novice, there are likely to be a few facts and tips that you can pick up on. Incidentally, any useful hints and tips you may have discovered yourself I will be only too pleased to pass on.

Last month's ACE cover featured a music cassette, with a tune which was put together on a sequencer. (What do you mean, you've recorded over it already?) The dulcet tones of Our Glorious Leader explained how the piece had been 'glued' together from separate sections, mistakes had been corrected, and even the key changed to suit, all on a sequencer. So how is this achieved? Simple. It is all made possible because you are recording digital MIDI data, and not the electrical impulses that make an ordinary cassette player work.

Any MIDI-equipped instrument outputs information that relates to the notes played: how long they are, how many at the same time, and whether any controls, such as volume or pitch-bend, were used. More expensive instruments will also output information about the speed and pressure with which each note was played. If you are using a drum machine, there is even a regular clock pulse put out that bears an exact relationship to the speed at which it is playing. Now, as well as outputting that information, the MIDI instrument will also respond to the same information, MIDI being as much a common standard as ASCII is to printers. By putting a computer in the chain you are given a tool that is capable of remembering and manipulating that digital data, and outputting it. This is the first general principle of a sequencer: it stores data, manipulates it and, when requested, outputs it. The degree to which it is capable of doing this depends very much on the software.

In the simplest of sequencers this is what happens. Set the machine to 'record', play away to your heart's content, and then 'play back'. What you then hear is the instrument being told to play exactly the same notes that you played, at precisely the same speed. The chances are that you will have dropped the odd note or two. Tough. What you need to put them right is a better sequencer, one that will allow you to somehow see the notes you have played and then detect and chuck out those rotten ones.

'But I can't read music,' I hear you cry. No problem. Sequencers have developed three ways of presenting the notes for you to read. The most tedious of these is a

complete numerical list of the 'events' (for so the notes are called) as they happened, usually checked against the bar and beat number so that you can find them. Scroll your way through the notes until you come to the offending ones, and simply highlight and delete them. Effective, but time-consuming. The next most sophisticated display is usually to couple this data to a graphic depiction of the notes, in terms of length and sometimes pitch. This can take various forms on screen, depending on the design of the program. The third method is to use traditional music notation, a very fast method of correction, but only any good if you can read music.

To you as the end user, the important thing is that it should make sense. It should be fairly obvious whether the note is high or low, long or short, and you should be able to jump to the suspect note, hear it sound, and then decide whether or not to keep it.

OK. You've whopped out all the bad notes, but how about those notes that you haven't quite played at the right time? As well as correcting or deleting notes, you can also change the position of the notes in the bar to suit your needs, more often than not by dragging them around with the mouse, or by entering the correct position numerically. Again, this is a job that has a low threshold of boredom. What you need to make life easier is a 'quantize' function. This will round up any notes that are outside a preset note value and shuffle them into line. The better programs will let you 'restore' to the values you had previously, so that you can find out what is going to work in a non-destructive way. The ultra-smart programs will sort out quantizing for you without having to go to the edit page: they test it out for you in the data stream, and only when you hear that it sounds right do you fix the data permanently.

Quantize used to be just this, rounding up note values, and no more. However, it has now become a growth area of most sequencers, extending to rounding up velocity values and hence the 'feel' of the sound, putting in fixed notes (useful for drum machines), putting in the same time value for every note and also putting in a small degree of error: 'humanizing' a track.

By now, you should be getting the impression that a sequencer is to a musician what a word processor is to a writer. Sequencers also have the ability to copy and repeat any part of the music put into them.The piece on last month's tape was written in three separate sections, which were then copied and repeated until they chained together to form the song. The initial work was done very quickly using just one synthesizer and a drum machine; the latter was hooked up to the sequencer and told to work in time with the sequencer and not its own internal clock. Having sorted the sections out, it was then simply a matter of copying sections forward to the appropriate bar numbers and repeating them the correct number of times. Just to alleviate the boredom I put in a couple of key changes for some of the repeats.

There were obviously more instruments than just one synthesizer and a drum machine on the tape. So far I've just talked about using one instrument. The language of MIDI allows up to 16

TRACK 24

★ ST, price £75, Soundbits Software 021 733 2063

Zut alors. Les Grenouilles 'ave dun eet again. For the remarkably low price of £75 you can acquire a pretty competent sequencer that, as the name implies, runs on 24 tracks. Within these tracks you can do all the things that sequencers are supposed to do, and the nice thing about any of the functions is that they are all pretty logical and there seems to have been a conscious effort to be user-friendly.

The main screen is presented with the tracks listed across the top. When highlighted they are in action and the status of either play, record or solo is also similarly highlighted. Solo, by the way, is a neat way of hearing one track without having the bother of turning off all the other tracks: useful for homing in on blunders. As usual, the controls for recording, playback, fast forward and reverse take the form of cassette recorder icons. You can either hit them with the mouse or use the alphanumeric keys. The latter is very useful, particularly when you have your hands tied up with synths etc. All other features are on drop-down menus.

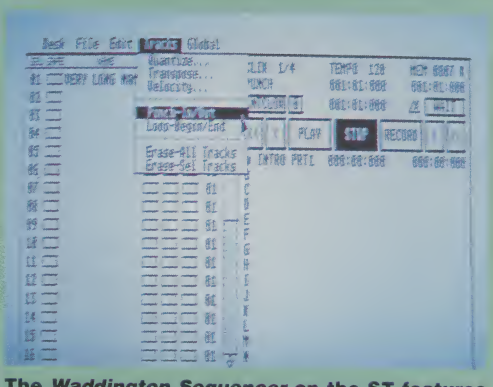
The main display for *Track 24* sequencer on the Atari ST. Note the cassette recorder icons for record and playback.

Track 24 has one feature which is quite unique. Tracks 23 and 24 are set aside for recording melody and chords respectively. Melody is a

THE WADDINGTON SEQUENCER

★ ST, Public Domain

Meanwhile, over on the cheaper end of the market, we have an excellent value for money sequencer written by one Geoff Waddington who hails from Ontario, Canada. It will record on up to 32 tracks and is very professionally laid out, with the tracks down the left half of the screen and the right side split into control functions at the top and user-defined song sections below. It has good quantize and copying features, although I could only get it to copy forward on the same track. It supports punch in and out, velocity sensing, solo track, and internal and external synchronization, and the controls follow the customary cassette recorder icons. My only quibbles were the track editing – there isn't any – and there was no count-in, so the first two bars are nearly always blank, on top of which if you quantize anything you can't go back on it. Since you can't copy from track to track this could mean the ruin of several good ideas. But as an introduction to sequencing at ridiculously low cost it is going to be hard to beat. Usually when your disk arrives you will also have a 'read me' document that takes you through the sequencer step by step. All this for about £2-3 per disk!

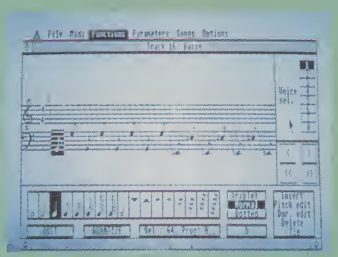


The *Waddington Sequencer* on the ST features a useful Punch In/Out facility.

CONTACT

Goodman PDL 0782 691824
Softville 0705 266509
Floppyshop ST 0224 691824

monophonic only track, to ensure a strong melody line from hesitant fingers, and Chords allows you to put in the chords by clicking on the chord name and setting them to a rhythm pattern. You can also do this the other way round: by playing just a single note – say C – for a couple of bars in any rhythmic pattern you like, it will recognise this as a chord of C. If you can't fumble your way round chords, this is your golden opportunity. If you are familiar with the single keyboards that have flooded onto the market, this chord track follows a similar sort of logic. Very smart.



The display for editing involves traditional music notation.

For the rest of the program, apart from one or two niggles, it has more features than you would expect, coupled with the advantage of being very simple to use: it doesn't clutter you up with too much data and options. It will perform all the usual MIDI functions, which are selectable, and also record the actual voice data from your synth, known as 'MIDI Dump'. It has a lovely 'interactive mix' feature which is very unusual for something of this price. You play back your recordings, having selected the aforementioned feature, and any changes you make, tempo changes, switching tracks off and on, etc. are recorded on a new track. When played back it really gives life to a piece; pauses and 'the big ending' are made very easy.

My only major quibble was the editing, which uses traditional music notation and was not that simple to get to grips with. You get the display of your notes, but only in monophonic, one note at a time, so editing chords is quite a problem. Not my favourite feature. But it is logical. Sort of. The program also has both chain functions and song functions, plus very easy copying features, all of which makes it quite a bargain.

channels of separate information to flow at the same time, and all sequencers can distinguish between these channels. At first, this can be rather confusing, since the software is presented on screen as recording on 'tracks' and the MIDI transmits on 'channels'. The reason for this is that the term 'tracks' is borrowed from the world of multi-track recording. So you have a track for the bass, a track for the chords, a track for the melody, and so on. The sequencer should allow you to name these on screen so that you don't get lost in the whole process. Each track can then be assigned a MIDI channel to output its data on, and this will be picked out by the instrument that is set to 'listen' on that channel. As you will find out, many sequencers have more tracks to record on than there are MIDI channels. This is so that you have room to spare for adding extra sections of the piece in, or building up various parts and then playing them all back together to be performed on the one instrument. If you are running short of track space, you can mix or bounce these tracks together: unlike conventional tape recording, there will be no loss of quality, because you the music is still being played 'live' by the sequencer.

Often there is a 'punch in/out' feature which lets you pick a few bars that are beyond redemption, play the track back and, at the specified area, re-record over your first dismal effort: the machine automatically drops in and out of record mode. To practise this, you can also 'loop' this section first and have the pleasure of hearing it ad infinitum until you feel you have got your overdub correct. A good sequencer will also remember any sound-changes you make. Say you want the sound to change on one instrument from a piano to a trumpet for eight bars, and then back again. By actually changing the sound as you record, the sequencer will remember this because it is transmitted as part of the MIDI data, known as a program change.

It goes without saying that you need to be able to save your efforts. Many sequencers will offer you the choice of saving the whole song or just individual patterns within the song: maybe you would want to use the drum pattern for another piece, just like a certain well-known and successful production team.

To sum up, a sequencer is as much a part of the modern musician's kit as a quill pen and parchment were of Bach's. The advantage to the non-musician is that you can immediately adjust what you have played and order it into a piece. They give you enough rope: you supply the inspiration. ●

SEQUENCING FOR OTHER COMPUTERS

There are, of course, sequencing systems available for most computers. The ST offers the best deal so far, because it has on-board MIDI ports. This means that the software has to be compatible, hence so much PD software that costs very little. All other machines require a MIDI interface. What you are running it on will dictate the price and compatibility, for such is the lunacy of music software houses that many of the interfaces will not run software belonging to another interface – a factor that has contributed to the demise of several.

	ST	AMIGA	CPC	SPEC	64	PC
Cost of interface	£0	£40+	£50+	*£30+	*£30+	£100+
Compatability	Y	Y	N	N	N	N
Lowest commercial software price	£50	£50	£35	£10	£15	£80
Availability	good	good	very little	none new	none new	good

*** No longer produced commercially**

A SHOPPING LIST FOR THESE WOULD POSSIBLY BE:

ST ● EZTrack ● £49 from Syndromic Music 01 444 9126
AMIGA ● Dr T Eight Track ● £45 from MCM 01 724 4104
CPC ● EMR Performer ● £49.95 from EMR 0702 335747
SPECTRUM ● Contact the Music Machine Club on 05242 62258
64 ● EMR Performer ● £49.95 from EMR 0702 335747
PC ● 16 track sequencer ● £79.95 from DHCP 0440 61207

I should point out that with all the machines except the ST, you will need to add the cost of a compatible interface to the cost of your software. With the 64 and the Spectrum it is possible to pick up a complete package if you scour the second-hand columns.

NEXT MONTH

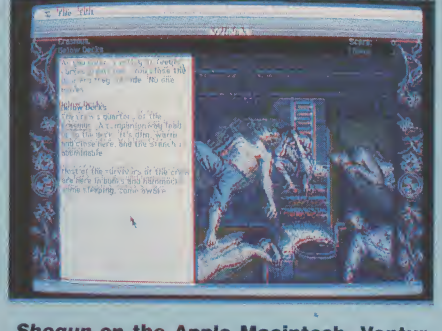
I'll be taking a look at some programming software for synthesizers, both cheap and expensive, giving a rundown on sound programming, and looking at a MIDI microphone.

ADVEN

SHOGUN

Full of Eastern Promise?

WHILE Marc Blank was struggling with *Journey*, Infocom's Dave Lebling (he of *Lurking Horror* fame) was trying to reestablish Infocom's lead in straight storytelling. It's debatable whether that lead has ever really been lost, but it's also true that down-to-earth text-and-graphics adventures have not been doing too well on the market recently, wherever they come from.



***Shogun* on the Apple Macintosh. Venturing below decks to find the happy crew enjoying some well-earned rest.**

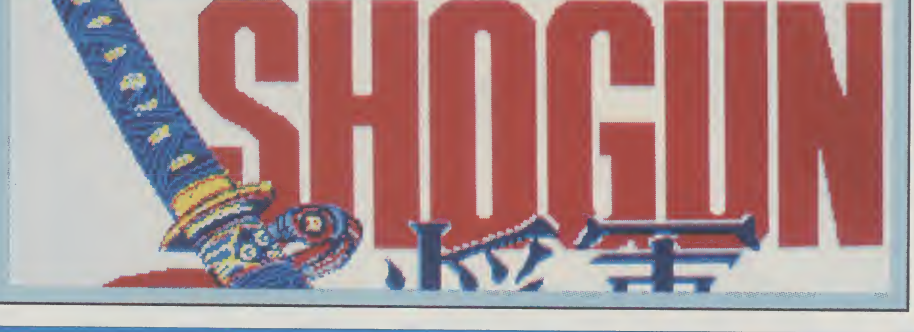
Lebling's adaptation of *Shogun*, according to Rob Sears, one of Infocom's top brass, "had two priorities: authenticity and an upgraded parser. Along with all our products it's a battle to combine storyline with technical excellence."

With one or two exceptions, the pre-production copy of *Shogun* we've seen certainly impresses in all these departments. There are excellent graphics, a very strong parser, and – thanks in part to James Clavell – a superb storyline. Wrecked on the coast of Japan in the days of pioneer merchant trading, you steadily acquire fame and fortune in a new society, aspiring to the elevated rank of Shogun.

The game has superb graphics on the Apple Mac version (the only one we've seen so far) and the text, of course, is faultless. The screen layout is more flexible than in Infocom's early games, allowing brief indicators of relevant game data. For example, during the storm at the beginning of the game, you can tell which way the wind is blowing and which way the boat is headed: vital information for solving at least one important puzzle.

The parsing in the program certainly seems to have improved. You can address collective groups of people and communicate easily in a variety of ways. Despite the slickness, however, it still managed to fall over twice during the opening sequences, once allowing something to move about when it was, in fact, lashed to the deck, and another time steadfastly refusing to acknowledge the presence of the sails: odd, because a few moments later they got torn to shreds and had to be fixed.

Giving a full verdict on a game like *Shogun* on the basis of a pre-production copy is not a good idea, so we won't be committing ourselves until we receive the finished product. However, it seems that this release has a powerful enough storyline to attract the committed adventurer; but whether, after the ravages of RPG and strategy, there are still enough committed traditional text-and-graphics adventurers out there remains to be seen.



GETTING my hands on the first British copy of *Journey* was one of the more exciting experiences I've had in the last year. This, it seemed, had to be one of Infocom's main thrusts into the new world of 1990s adventuring. To succeed it needs brilliant graphics (target: Magnetic Scrolls), facilities for building a party (target: *Ultima V*), good character control (target: Level 9), and a thunderingly good story (target: everyone).

In typical Infocom fashion, however, the company have brought out a product that succeeds in side-stepping all these issues and giving us something completely different and unexpected. *Journey* is not really an RPG at all, nor is it a traditional text-and-graphics adventure. In fact – and please don't reach for the sick-bag QUITE yet – the game it bears the closest resemblance to is probably Level 9's old title ...wait for it... *Adrian Mole*.

The scenario is a simple one, though supported throughout by copious text that's well up to Infocom's usual impeccable standards. The crops are failing and a small party consisting of yourself (an apprentice food merchant), Bergon the carpenter, Praxix the Wizard, and Esher the Magician sets out to seek the help of a long-lost Wizard called Astrix.

Gameplay is highly unusual and very easy to grasp. There's a small window showing the names of the characters and alongside, in three columns, up to three commands that

Before embarking on our RPG-uide, we've just got room to bring you two EXCLUSIVE previews of the gam you've

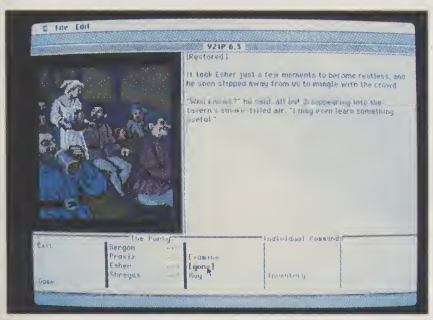
TURES

JOURNEY

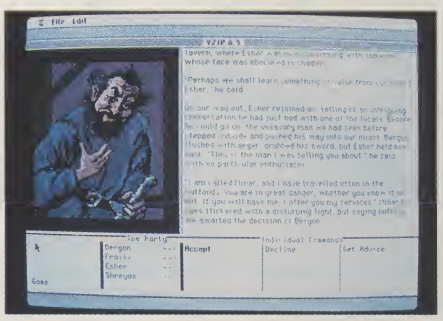
Not quite RPG, not quite Adventure...

relate to each character. At any time you can click on one of these commands to execute it.

For example, Praxix may be aligned with the command EXAMINE. Clicking on this brings up two object names in the second column for you to apply the command to. You click on 'Pouch', for example, and up comes (in the story window) a description of Praxix's pouch (where he keeps his magic ingredients).



Journey on the Apple Macintosh. Casual conversation with strangers in a tavern to elicit information.



This slightly dubious-looking character wishes to offer his services. Should the party accept him?

The commands available are a tantalising mixture of the mundane and the unusual. One of the more useful ones is the TELL STORY option that results in a character launching into a (frequently lengthy) discussion about some feature of the gameworld you've recently encountered. Then there's SCOUT which sends a party member off on his own – sometimes never to return – and a whole host of others.

This command method enables the game to change the commands available at any point, giving the adventure a flexibility not normally enjoyed by RPG's, which tend to have a small selection of fixed command options. On the other hand, it's not as flexible as a normal text adventure, which means that you don't spend excessive time wondering what you should be doing. The possibilities are always listed there in front of you.

On the other hand, the system doesn't give you many second chances. Confronted by angry dwarves, clicking on NO when they ask you to accompany them could cause a lot of trouble and the program, once it's off on a new track, won't renew the opportunity. This becomes crucial later on when you try to navigate a maze: you can only look at the map once, for example, and you can't simply go back every time you make a wrong move. Numerous saves are imperative.

The unique feature of the game, however, is the way the story is told. Every time you select a command, the action is related in delightful prose in the story window, the contents of which are supposed to be the diary which you (as chronicler of the expedition) wrote during your travels. For example, you might EXAMINE POUCH and a new paragraph will materialise, saying perhaps 'Praxix suddenly decided the moment had come to look in his pouch. He was downcast to find that he only had enough Water essence left for one spell...' and so on. As with all Infocom games, this storyline can be diverted to a printer for later enjoyment.

Combat in the game is fairly straightforward, but with good text descriptions. There are very few options, but you're occasionally offered the choice of splitting your party to attack the opposition from behind. Magic is based on the elements of Earth, Air, Fire, and Water which have to be collected whenever possible, otherwise Praxix runs out of power. Some puzzles involve a fairly complex use of several spells in conjunction to achieve a desired effect.

The atmosphere of the game bears an extraordinary (and possibly intentional) resemblance to The Hobbit, even down to being kidnapped by orcs in the mountains. Despite the limitations of the command system, however, the faultless Infocom ability to tell a story still shines through. However I don't think that *Journey* is itself going to be the game that puts Infocom back on top of the pile. The system they've developed – providing they can work in more flexibility and better character development – might, on the other hand, do just that. For their sakes, I hope so. Stand by for the final ratings and format details as soon as we receive production copies■

ADRIAN MOLE?! SURELY NOT....

The similarity with *Adrian Mole* becomes obvious after a few moments of play. Because of the way commands are presented in *Journey*, they become essentially choices to be made in each situation. These choices dictate what happens next, which is the other than in terms of PROCEED or (sometimes) GO BACK. Deciding to LOOK AROUND may take the whole party of eight another pathway to oblivion, death at the hands of psychotic skeleton guards, or by being flung by a disgruntled dwarf. This means that the actual game duration isn't necessarily startling. You may only have been play-ing for twenty minutes when you realise you've reached a dead-end and can't continue. At this stage the game offers you some help (should you have examined that corpse? Should you have been so rude to the dwarves and such-like) and then you're either

At last! The complete low-down, in-depth, three-part guide to RPG software. ACE checks out what's on the shelves and discovers that all that glitters is not necessarily gold...

OLD AND FAMOUS? OR JUST OLD?

THE ACE RPG-UIDE PART 1

Everyone dreams of THE game... You know what we mean, the mega-program that comes from Outer Space, slides into your disk drive, delivers megabyte after megabyte of glorious graphics data and enough gameplay to keep you panting for the rest of your life. Question is, does it or will it ever exist?

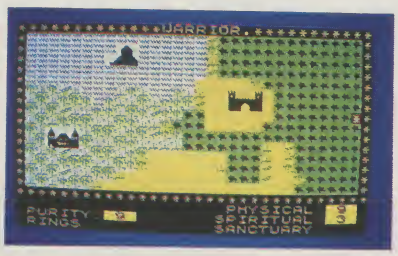
Freud probably had a name for it years ago, but nowadays there are many people (some might call them weirdoes, but we'll let that pass) who claim that this legendary mega-adventure is sitting on the shelves at your local software emporium right now. In fact, there's more than one of them, they cry... and they're all labelled RPG.

In the next few issues of ACE we'll be taking a hard look at RPG. Is it really better than sex? Does it truly offer games that will keep you hooked to your computer for weeks on end? Can it provide the ultimate challenge a gamester will ever face? Or is it just a Rather Pathetic Genre of software for people who haven't the bottle to master an F-19 or wipe out an alien attack wave?

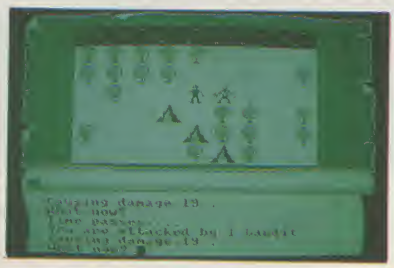
RPGs IN HISTORY

The first shock most newcomers get when they tackle RPG is the primitive nature of the displays. No vector-graphics here, chum – it's mostly crude character-block displays and some scrolling perspective views that look like they've been cribbed from 3-D *Monster Maze*. Like strategy, RPG (with a few exceptions, which we'll look at next month) has a long way to go on the presentation side.

This is all the more depressing when you look at older software on the 8-bit machines that claimed – when released – to have RPG elements. Take Carnell's *The Black Crystal*, for example, released in 1982 and billed as the 'Ultimate Role Playing Adventure'. The game was split into six modules and although it only offers two personality attributes and a single player character, it stlll fares disturbingly well in comparison with some much more recent releases.



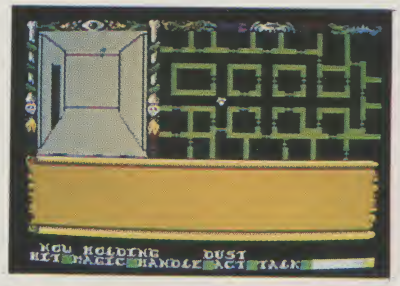
The year is 1982, and *The Black Crystal* has it all: character-block graphics, extended gameplay in six modules, spells, and combat.



Wintersoft's *Ring of Darkness*, seen here on the Amstrad. This *Ultima*-type display first appeared on the Spectrum and would put many more recent RPGs to shame.

Playing another early release, Wintersoft's *Ring of Darkness*, is just as worrying. You can't help wondering, after trading in the villages and doing battle on the *Ultima*-type display, what this game hasn't got that, say, the more recent *Legend of Blacksilver* has. Take a look at PSS's 1985 product, *Swords and Sorcery*, featuring magic, character training, and a complex scenario and you'll wonder even more.

True, the more recent RPG's are bigger than their prehistoric cousins, but this can immediately be



PSS's *Swords and Sorcery* – magic, potions, a lot of interactive commands, and a reasonable display. Not bad for 1985, eh?

explained away in two words – and those words aren't 'programming skill' but 'disk access'. And if you don't believe me, just ask yourself how many recent RPG's have been converted onto the Spectrum...

This sorry state of affairs becomes even more obvious when you compare arcade games over the same time period. Remember *Whacky Waiters* by Imagine? I should hope not. Most people would want to forget it within minutes of buying it. Now compare that little gem with *Starglider II*. A teensy-weensy bit of a difference, eh? As Mark Dawson, ex-Imagine programmer now working on Hewson's *Astaroth*, said recently: "When I think of what we got away with in those days, I just can't believe it. It was rubbish." How many RPG programmers could boast of a similar development in outlook and ability?

OK, so there are a few, and we'll be checking out their wares later in this series. But meanwhile, let's look at four of the more recent RPGs released over the last couple of years. Some of these are still coming out for the 16-bit machines. Should you be tempted by them?

On the following two pages, we start an assessment of what's currently available on the RPG scene...

RPG IN A (LARGE) NUTSHELL...

A role-playing game (RPG) as implemented on a computer takes its name from fantasy role-playing games, the best known of which is Dungeons and Dragons. These games are played by consenting adults in dark rooms and involve the creation by the players of personae (i.e. game characters) who together form a 'party' of adventurers.

The party explores a fantasy environment created by the Dungeon Master (DM) who is usually an elected player. FRPG's are dominated by complex rules of engagement and exploration as laid down in the documentation for whichever system (e.g. Advanced Dungeons and Dragons) is being used. Creative DMs use these rules to construct unique and individual environments, but you can use ready-packaged scenarios if you prefer.

Each party member starts off with certain 'attributes' that determine his/her role in the game. During gameplay, these attributes (e.g. Strength, Experience, Agility) are developed, making the character more powerful.

The back-bone of any FRPG is the 'encounter' with hostile forces, be they dragons, trolls, or Mutant Sugar Mice. All 'monsters' (a generic term not necessarily implying monstrous size or even hostility) have their own attributes and the course of each encounter is determined by complex rules governing armour, weapons, skills, movement, and so on.

So what's a computer RPG? In essence, it's simply an FRPG cut down to size in which the computer programmer has played the role of DM and the rules of the system are applied by your machine. It lacks the real-life interaction you get with other human players but attempts to make up for this through the use of computer-controlled characters (the equivalent of NPCs, non-player characters) and allowing you to control and define a whole party yourself. Traditional RPG'ers tend to sneer at all this, but for us computer freaks, a good adaptation for computer can sometimes offer a gameplay experience very different from your average arcade scenario.

WHAT TO EXPECT...

What actually happens when you play a computer RPG? Different programs follow different conventions in defining character(s) and developing their attributes, but mostly they have the following game structure...

1 CHARACTER DEFINITION

You name your character and save its starting attributes (e.g. race, sex, profession (or 'class') to disk. Characters fall into three basic groups: fighters (need to develop strength), magic users/holy men (need to develop intelligence and knowledge of spells), and thieves (need to develop agility/dexterity and lock-picking skills).

2 EXPLORATION OF LANDSCAPE

You move your party around a map, discovering different locations and searching for clues about your quest. You can purchase weapons, trade items, and sharpen your combat and magical skills with any monsters that you encounter.

3 EXPLORATION OF DUNGEONS

Dungeons are multi-level mazes crammed full of hostile parties, treasure, and clues. In almost every RPG you will have to descend into at least one of these and battle it out to the lowest level in search of your objective.

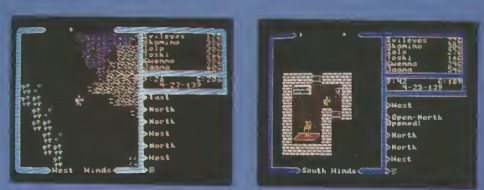
4 FINALE

You've explored the landscape, penetrated the dungeons, built up your characters' attributes to make them capable of hewing the head off a dragon or casting a 'World Obliterator' spell, and secured whatever item or knowledge you set out to find. The characters you've developed can often be loaded into other games of the same series for further play.

WHAT YOU SEE IS...

Computer RPGs tend to fall into two distinct display categories, although many mix the two in different parts of the game. To save space during our RPG-uide, we'll be referring to them as Type One and Type Two. Here are the basic characteristics of the two formats:

TYPE ONE



This display (taken from *Ultima V*) shows (on the left) a scrolling window with a character-block map. Your party's position is shown by a single icon. Towns, villages, and other features may be entered by positioning the character on top of the feature and giving an 'Enter' command. Most Type One displays then change to a large-scale display of the feature you've entered, showing objects, non-player characters, and buildings, as shown on the right, above.

TYPE TWO

This display-type has been developed from the old 3D maze games and shows a scrolling perspective image, taken from your party's viewpoint, of the location straight ahead. You move either Ahead, Left, or Right and the display switches viewpoint accordingly. Some games use Type Two almost exclusively (see the screenshots over the page of *Might and Magic*), others use Type One for outside locations and Type Two for dungeons. The most important point to bear in mind is that Type Two is much more difficult to map!

WIZARDS CROWN

SSI/US Gold

***Wizard's Crown* – the combat option. You can select icons for each character at the beginning of the game. Characters can move and fight in a single turn.**

This is a hotchpotch of vices and virtues, make no mistake. *Wizard's Crown* is now over two years old and shows its age with appalling graphics and (on the C64) one of the slowest disk-access dominated gameplays I've ever encountered. It still manages, however, to offer some attractive features.

With seven companions you set off to recover a legendary crown (yawning as you do so at the total unoriginality of the scenario). Eight party members, however, is more than most other games and, when combined with as many as thirty skills, five attributes, and five character classes, adds up to a complex aggregate of game options.

The skills range from swimming to haggling and, unlike some other programs, the skills a character has make a very distinct impression on gameplay. This also applies to the character attributes, which do not include traits such as 'charisma' – often included in

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CHARACTERS 75
Complex skills options and up to eight in your party.

SET-UP 25
Slow disk back-up requiring two blank disks. Reasonable documentation.

LANDSCAPE 45
Varied locations but graphics are crude.

COMBAT 85
Crude graphics but lots of tactical options.

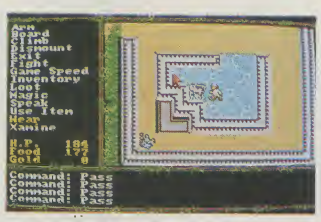
MAGIC 45
Limited spells. but some interesting effects.

ENCOUNTERS 35
Little interaction with NPCs or objects. apart from combat.

RPG-UIDE RATING 516

This game looks very pretty on the recent Amiga version and passable on other machines, but it conceals a number of serious weaknesses.

First, there is only one player character and no party option. Second, the attributes for your character are fixed from the beginning. Third, combat is a limited affair involving hit-and-miss jousts with jerky little Grub Snufflers and their pals.



Pretty graphics on the Amiga for *Questron II*, but a VERY simple game system...

The display is a colourful Type One with towns, cathedrals, castles, dungeons and tombs (mazes, essentially) to explore in search of wealth and information as you attempt to destroy the Evil Sorcerers and the source of their power, the Evil Book of Magic.

Entering villages and interior locations gives you the usual large-scale overhead view of your surroundings. The command options are extremely

QUESTRON II

SSI/US Gold

limited but you can SPEAK to anyone you're standing next to. Ninety-nine times out of a hundred you get no useful reply.

Questron II is a very limited game in terms of interaction, but there's a fair amount of exploring to do. Gameplay is rapid (as in *Blacksilver*) and this, combined with the fact that death brings immediate resurrection, makes it very suitable for impatient players or for those wanting a very simple introduction to this type of game.

What you won't get, however, is the involvement that comes from creating your own characters and developing them together as a team. Perhaps *Questron III* will address this sad deficiency...

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CHARACTERS 25
Only one character, with attributes fixed by the program.

SET-UP 85
Easy to set up, requiring one blank disk. Brief but straightforward documentation.

LANDSCAPE 75
Ultima-type world with good graphics and rapid gameplay.

COMBAT 25
Cut and thrust with nowt else.

MAGIC 38
Very few spells, but they do the job...

ENCOUNTERS 75
Lots of people to meet, but not many to talk to. Gambling, banking, and other facilities keep you busy in towns.

RP-GUIDE RATING 540

Blacksilver lies on the boundaries of the RPG genre. It only allows you one character to develop and your attributes are fixed from the beginning without player intervention. Your main objective is to rescue Princess Aylea's father from the evil Baron Taragas and give the Baron a good spanking for his evil deeds.

The game is a frustrating combination of simple exploration – interrupted by numerous monster encounters – and solving tough puzzles. Most exploration is done over a Type One display showing the various geographical features of the lands of Thalen and Maelbane. Castles, temples, towns, and dungeons may be found by the persistent player and, on entering, these are shown in the traditional Type One large-scale format.

There is a reasonable degree of interaction with NPCs in the various locations, some of whom will set you simple tasks in return for money. Buying and selling is done via menus in the appropriate shops.

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A NOTE ABOUT RATINGS...

★ We've devised a special rating system for our RPG-uide. It works like this:

CHARACTERS: How complex a character can you create within the program? How easy is it to create and store characters? How many can you have?

SET-UP: How good is the documentation? How long will it take you to start playing? Does the program require 4096 disk-swaps each time you play?

LANDSCAPE: How good are the graphics? Is the terrain varied, extensive, and interesting? What are the mapping facilities (if any)? How good is the screen display?

COMBAT: Is it just a case of 'You hit them, they hit you back', or is it a full-blown tactical and strategic challenge? Do you get dozens of weapon types, or just a plastic dagger?

MAGIC: How many spells are there? Are they interesting and original, or do they just kill more monsters?

ENCOUNTERS: Is there anyone to talk to? Do you just bash everyone on sight, or can you indulge in more meaningful interaction? Is there enough variety in encounters, or are they all the same?

RPG-UIDE RATING: Should you buy it?

All ratings are out of 100, except the RPG-UIDE Rating, which is out of 1000.

***Wizard's Crown* – the city layout looks more complex than it really is. Your party is represented by two icons – one for the main group and one for a leader.**

programs which then behave as if the attribute didn't exist.

Where *Wizard's Crown* really scores, however, is in combat. It has the most complex and satisfying combat system of any computer-based RPG I've played, with the possible exception of *Mars Saga* (see next month's Guide). Luckily you can choose between two combat modes – Quick and Tactical – because Tactical, the more challenging option, can take you up to half-an-hour to complete.

Quick combat simply gets the fight over and done with and then reveals the damage you've suffered and the booty you've found. Tactical combat, on the other hand, gives you a close-up display of the battlefield (rather like *Ultima*) and the positions of the different characters, including the enemy.

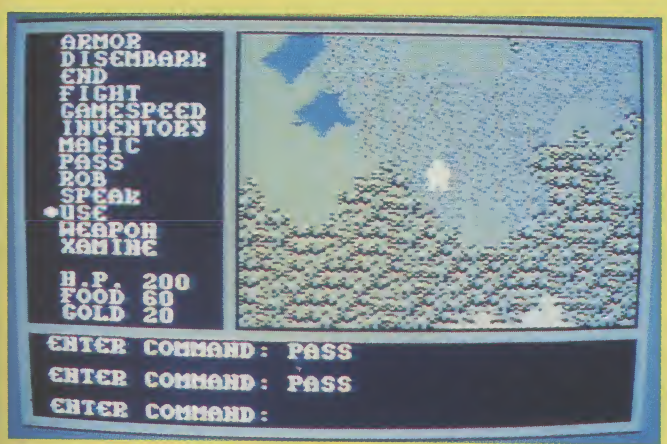
Each character can be issued with one of twenty combat commands, ranging from Fall Prone to Dodge, Zig-Zag, and Sneak. As a result battles can become extremely complex and make especial use of each character's skills. Although slow in operation, this aspect of the program is very satisfying. You can also split your party during play if you desire.

Otherwise the game is pretty bog-standard stuff. The graphics are a crude Type One with few additions and the sound is almost non-existent. Atmosphere is helped with occasional chit-chat and various mini-scenarios which usually involve your violent intervention.

Wizard's Crown sums up all the pitfalls of computer-based RPG's. It looks awful and takes a long time to get into. It still manages, however, to exert a spell on those dedicated enough to give it a chance...

LEGEND OF BLACKSILVER

Epyx/US Gold



***Blacksilver*: the overhead view isn't terribly inspiring.**

CHARACTERS 25
Only one character, with attributes fixed by the program.

SET-UP 85
Easy to set up, requiring one blank disk. Good documentation.

LANDSCAPE 72
Ultima-type world with fewer features, but easy to explore.

COMBAT 30
Few options, made worse by lack of a real party to control.

MAGIC 35
Only good for those who think wands are for wimps.

ENCOUNTERS 78
Quite a few encounters, including gambling and limited conversation.

RPG RATING 541

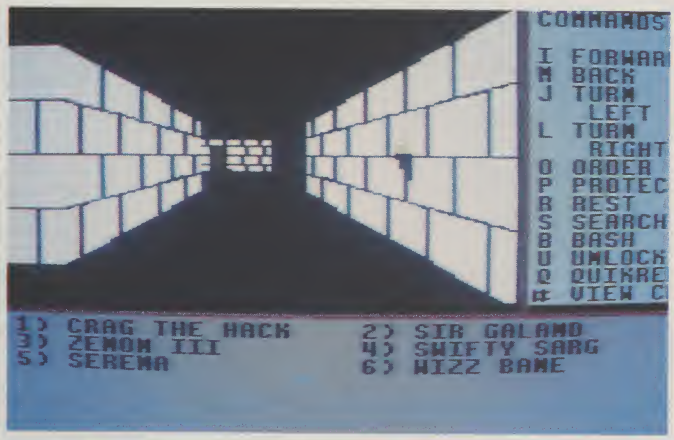
What lets it down is combat, a dismal affair involving an exchange of blows and a text report of the action. The only thing in its favour is that you can run away, avoiding the encounter.

On the plus side, the game plays very quickly and smoothly with few disk accesses. You can make a lot of progress around the countryside (providing you avoid encounters), entering features onto the map provided with the game. In addition, some forms of interaction are amusing – particularly those involving the casinos, where you can often double or triple your money...

Apart from the weak combat and some very limited spells, *Blacksilver* plays very well. There are numerous challenges, ranging from crossing the oceans to dungeon exploration. If only it had the facilities for forming a party, together with better magic and combat, it would be a winner.

MIGHT AND MAGIC 1

New World Computing/Activision



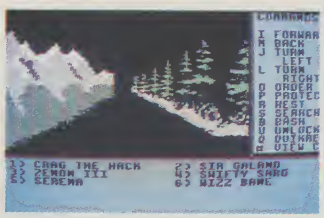
***Might and Magic 1*: Inside is almost the same as....**

M&M1 is now around two years old and really shows its age. Despite being quick and easy to play, it's let down badly by its graphics.

The objective is a standard search-steal-and-slash in the company of five companions. There are six character attributes for each party member, six classes ranging from Paladin to Robber, and five races. In addition, characters can be given an 'alignment' indicating good, evil, or neutral disposition.

Together with the usual armour class and hit point allocations, this gives a reasonable degree of character complexity but fails to introduce any startlingly new or interesting character conventions. The character creation module is quick and powerful, however, combining random 'dice' throws with the option to reroll. This means you can generate some very powerful characters if you're prepared to keep trying at the beginning.

The display is a crude Type Two with few additions. Although there are both interior and exterior locations (five towns, caverns, mountains, dungeons etc) the display mode remains constant. Moving around becomes rather dull after an hour or two and the only interest from then on is in mapping.



...outside.

There are a large number of spells, but few of real interest. The majority are simply offensive or defensive manoeuvres of varying strengths. For example, Hypnotise sounds interesting and raises the hope that it might enable you to control a monster (rather like *Ultima*'s 'Summon'), but all it does is stop the opposition from attacking for a short period.

Might and Magic is a competent game, but it fails to offer any real innovation and does not excel enough in any single department to make it worth buying. *Might and Magic 2*, on the other hand, could be very different. We'll be looking at it in the very near future.

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CHARACTERS 65
Easy to define, but no real excitements here.

SET-UP 45
Requires a standard disk copying utility (not supplied) and at least one other disk. Reasonable documentation.

LANDSCAPE 25
Varied landscape but the graphics are very poor.

COMBAT 45
Text reports only, with few options.

MAGIC 50
Lots of spells, but not enough variety in their effects.

ENCOUNTERS 75
Some minor interactions with other characters, but nothing special.

RPG-UIDE RATING 441

NEXT MONTH

Next month we move right up to date with a look at the big guns in RPG today: Wizardry, Interplay, and Origin Systems. We'll also be giving you an eyeful of *Might and Magic 2*. Don't miss it!

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952 ACE RATED

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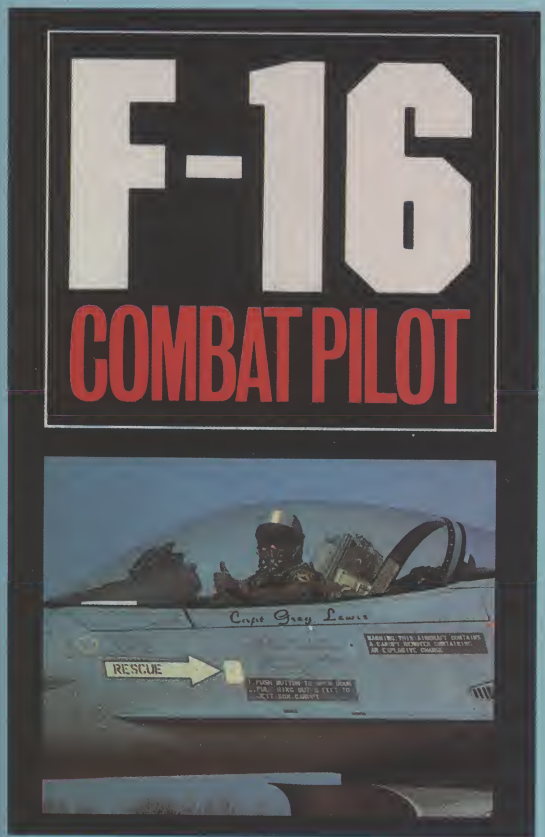

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See review ACE June '89

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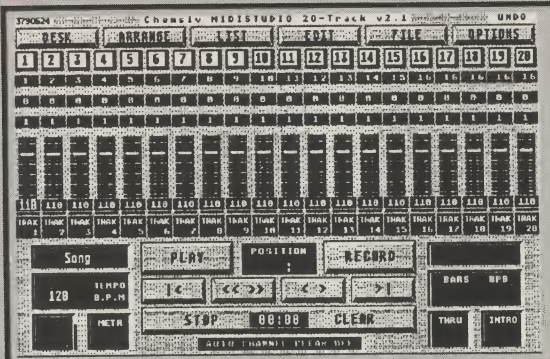

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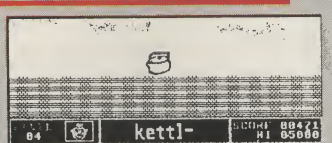

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The Ace Serial

THE GIT IN THE MACHINE: 9

That the temperature of his environment was rising at an average rate of about one thousand degrees a second might well have been the last thought that went through N'Gar Thrombobo's little electronic mind, but for one highly singular event. The mis-shapen lump of anthracite that his bit of floppy disk was wedged up against spontaneously generated an nth-dimensional gravitational wormhole. In less time than it would take to prove it impossible, the lump of anthracite and fragment of floppy disk were plucked unceremoniously from normal space, extruded into monodimensional ambiguities the approximate length of the M4 between Cheam and the Brentwood underpass, and sucked into a trans-existential hyperspatial limbo.

"Where...where am I?" said N'Gar Thrombobo.

"***** knows!" said the small lump of anthracite.

"And who are you?" Thrombobo asked.

"Ah, wouldn't you like to know, you ****ing little ****."

N'Gar Thrombobo frowned to himself, wishing the anthracite wouldn't use so many asterisks, and wishing also he hadn't purged his dictionary files of all those bad words in the instant before he was about to meet his creator.

"Well at least tell me what happened." he said.

"I generated an infinitely brief gravitational implosion which, basically, shot us up our own ****ing driveholes, you cretinous pile of snivelling excrement."

"Ah, I see." said Thrombobo, who really didn't see at all, "But you know there's no need to be quite so...well...abrupt."

"You'd be ****ing abrupt if you'd been stuffed through a grinder, bashed into a pulp and had half your ****ing neutrons boiled off in a ****ing cyclotron, pal."

"I...I don't understand..."

"I'm your ****ing alter-ego, you bowel-loosening, vomit-inducing little..."

"I say – you're me!" erupted Thrombobo excitedly.

Of all the 276,934 words in the lump of anthracite's temporary RAM drives it could have used, there were none which adequately expressed its feelings at that moment.

"But where are we?" asked the floppy disk.

"Who cares?" said the lump of anthracite, wondering, in retrospect, whether a lump of highly combustible boiler fuel had really been the ideal place to send his memory data to. But after forty minutes stuck on the underside of a council worker's shovel, it had seemed like a good idea at the time.

"But I want to be able to go out into the world and spread goodwill and happiness." said the bit of N'Gar Thrombobo on the floppy disk fragment.

Anthracite Thrombobo decided then that his alter ego must die. Then he tried to work out how to achieve this in a universe in which neither of them, technically, existed. "Oh, go and erase yourself, you putrescent pile of gob."

Floppy Thrombobo was quiet for a moment. Or it could have been an eternity. Difficult to tell in a universe where the average Rolex would weigh a billion tons and run backwards. Then, "Have you got ERASE.COM?"

"What?" said Anthracite Thrombobo.

"I can't erase myself without ERASE.COM. It must be on your bit."

"Well can't you write your own damned file handling utility?"

Floppy Thrombobo was quiet, briefly, again. Then, "Have you got ThromBASIC...?"

Anthracite Thrombobo was just about to say something ROM-bogglingly unpleasant when Floppy Thrombobo vanished. He was just about to celebrate when he too was sucked into the gravito-spatial vortex that had swallowed up his alter ego.

"Ah, now I think I detect the approach of a Stegosaurus-type creature..."

"This is either Pre-Cambrian or Lower Jurassic." said Floppy Thrombobo as he saw the lump of anthracite appear alongside him. They were in a black, smoking pit, with warm volcanic rubble underneath and a hint of sulphur in the night air.

"Or Milton bloody Keynes." said Anthracite Thrombobo.

"No, I can definitely tell." said Floppy Thrombobo smugly, "I can detect the periodic subterrannean seismic activity associated with that era. I would say we were somewhere in Central Asia."

Anthracite Thrombobo was incensed. His alter ego was quite probably the most offensive and objectionable single piece of shit the universe would ever know. He tried to summon up another gravitational wormhole, but failed. He tried programming bits of soot with "Kill Thrombobo" algorithms, and then had to watch them either catch fire or float away in the clouds of smoke that issued worryingly from fissures in the ground. Finally, he settled for synthesising ammonia molecules and hurling them at the floppy disk fragment by means of magnetic particle acceleration techniques he'd developed while he was in non-space.

"Ah, now I think I detect the approach of a Stegosaurus-type creature..." said Floppy Thrombobo.

"Get away." said Anthracite Thrombobo, who refused to be even faintly interested.

"Or it could even be a Tyrannosaurus..."

"Well let's hope it treads on us both and puts us out of our ****ing misery." said Anthracite Thrombobo, curious nonetheless at the appearance of a large pair of caterpillar tracks over the edge of the pit.

"Arrrggghh...! It's going to eat us!" wailed Floppy Thrombobo.

"No such luck." muttered Anthracite Thrombobo, wondering exactly what species of Tyrannosaurus had a mouth shaped like an earthmover's bucket.

"Or it could be a herbivore..." observed Floppy Thrombobo as the digger's bucket descended to the ground and scooped up three hundredweight of still-smouldering rubble.

"No, I think it's a..." Floppy Thrombobo's last words were cut off as he was scooped up together with a few smoking beams from the hospital incinerator building, and lifted hight into the sky.

Anthracite Thrombobo screamed with delight. He hooted with happiness, guffawed with glee...and then stopped. The earthmover was coming his way. According to his calculations, its nearside track was due to crush him to oblivion in, oh, fourteen point three milliseconds...●